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Technical Report 781

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# Retention Patterns for Army National Guard Units Attending the National Training Center

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and

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Personnel Utilization Technical Area  
Manpower and Personnel Research Laboratory



U. S. Army

Research Institute for the Behavioral and Social Sciences

April 1988

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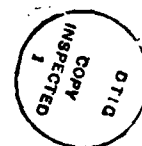
Research accomplished under contract  
for the Department of the Army

Battelle Columbus Laboratories

Technical review by

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## REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION Unclassified			1b. RESTRICTIVE MARKINGS		
2a. SECURITY CLASSIFICATION AUTHORITY			3. DISTRIBUTION / AVAILABILITY OF REPORT  Approved for public release; distribution unlimited.		
2b. DECLASSIFICATION / DOWNGRADING SCHEDULE					
4. PERFORMING ORGANIZATION REPORT NUMBER(S)			5. MONITORING ORGANIZATION REPORT NUMBER(S)  ARI Technical Report 781		
6a. NAME OF PERFORMING ORGANIZATION Battelle Columbus Laboratories		6b. OFFICE SYMBOL (If applicable)		7a. NAME OF MONITORING ORGANIZATION Army Research Office	
6c. ADDRESS (City, State, and ZIP Code) Suite 211 200 Park Drive Research Triangle Park, NC 27709			7b. ADDRESS (City, State, and ZIP Code)  P.O. Box 12211 Research Triangle Park, NC 27709		
8a. NAME OF FUNDING / SPONSORING ORGANIZATION U.S. Army Research Institute		8b. OFFICE SYMBOL (If applicable) PERI-RP		9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER  DAAG29-81-C-0100	
8c. ADDRESS (City, State, and ZIP Code)  5001 Eisenhower Avenue Alexandria, VA 22333-5600			10. SOURCE OF FUNDING NUMBERS		
			PROGRAM ELEMENT NO. 6.37.31.A	PROJECT NO. 2Q263 731A792	TASK NO. 2.4.1
11. TITLE (Include Security Classification)  Retention Patterns for Army National Guard Units Attending the National Training Center					
12. PERSONAL AUTHOR(S) David W. Grissmer and Glenda Y. Nogami					
13a. TYPE OF REPORT Final		13b. TIME COVERED FROM 5/30/85 TO 1/15/87		14. DATE OF REPORT (Year, Month, Day) 1988, April	
15. PAGE COUNT 132					
16. SUPPLEMENTARY NOTATION  Glenda Y. Nogami, Contracting Officer's Representative.					
17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number) Army National Guard      Attrition Reserve Forces          National Training Center Retention		
FIELD	GROUP	SUB-GROUP			
19. ABSTRACT (Continue on reverse if necessary and identify by block number)  → This report analyzes attrition patterns of Army National Guardsmen during their training and rotation at the National Training Center (NTC). It uses both a case study approach for seven units and statistical analysis of individual attrition to determine if attrition is higher for units attending NTC. It concludes that attrition is significantly higher for NTC units because of the effects of increased training time, which increase family and employer conflict and lost income from civilian jobs, and because of pruning of marginal personnel. ←					
20. DISTRIBUTION / AVAILABILITY OF ABSTRACT <input checked="" type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT. <input type="checkbox"/> DTIC USERS			21. ABSTRACT SECURITY CLASSIFICATION Unclassified		
22a. NAME OF RESPONSIBLE INDIVIDUAL Dr. Glenda Y. Nogami			22b. TELEPHONE (Include Area Code) 202/274-8119		22c. OFFICE SYMBOL PERI-RP

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Office, Deputy Chief of Staff for Personnel  
Department of the Army

April 1988

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Army Project Number  
2Q263731A792

Manpower and Personnel

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## FOREWORD

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The Retention Team of the Personnel Utilization Technical Area performed this research on attrition and retention in Army National Guard (ARNG) units as part of the continuing commitment of the Army Research Institute (ARI) to understanding the dynamics of retention and attrition from the Total Army perspective.

Case studies of the first seven ARNG units that attended the National Training Center (NTC) were completed. In addition, statistical comparisons of types of attrition within units attending and not attending NTC were performed. This effort represents ARI's first systematic investigation of the impact of an extended annual training exercise on ARNG unit attrition and retention.

The research reported here was requested of the Army Research Institute by the Vice Chief of Staff of the Army. The results have been briefed to the Assistant Secretary of the Army for Manpower and Reserve Affairs; the Vice Chief of Staff of the Army; the Deputy Chief of Staff for Personnel; the National Guard Bureau; the Director, Army National Guard; the Chief, Army Reserves; and the Adjutant General, State of Georgia. The information from this research has been utilized by all levels for making policy and improving the retention in units participating in NTC exercises.



EDGAR M. JOHNSON  
Technical Director

RETENTION PATTERNS FOR ARMY NATIONAL GUARD UNITS  
ATTENDING THE NATIONAL TRAINING CENTER

EXECUTIVE SUMMARY

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Requirement:

The purpose of this study is to establish whether National Guard units attending the National Training Center (NTC) have higher attrition levels than similar units not attending NTC, and to ascertain the reasons for differences in these attrition levels.

Procedure:

The research was carried out through case studies of the units and statistical analysis of computerized personnel data from the Defense Manpower Data Center (DMDC). The case studies were performed through visits and interviews with each of the seven units. These visits usually occurred within 1 year of the NTC rotation. A typical visit was made during a weekend when units were drilling, and separate interviews were held with the unit commander, unit officers, NCOs, and junior enlisted personnel.

The statistical analysis developed attrition models for NTC and comparable control units for the period starting 1 year before NTC and ending 6 months after NTC. These models were developed by matching personnel records for these two time periods to determine which individuals were present and which separated. Logistic models were fit to this individual data to control for differences in attrition between different groups and to test for the presence of statistically significant differences in attrition between NTC and control unit personnel. Tests were also run to determine which types of personnel suffered the largest differences in attrition for NTC and control units.

Findings:

The results show that attrition both from the unit and from the Guard is higher among reservists participating in NTC training than among those in comparable units not attending NTC. For the 18-month period (12 months before NTC to 6 months after) attrition from NTC units was 28.1 percent compared to 21.7 for comparable non-NTC units. For attrition out of the Guard, the corresponding rates are 20.8 percent for NTC units and 16.6 percent for non-NTC units. This represents a 29 percent increase in unit attrition and a 25 percent increase in Guard attrition potentially attributable to NTC training.

Each of the seven NTC units analyzed separately shows higher attrition from the unit and six of the seven show higher attrition from the Guard than comparable non-NTC units. There is no distinct pattern of a decreasing NTC attrition effect for later versus earlier NTC attendance, although there is a

clear pattern for the three Georgia units that units attending later had smaller attrition effects than units attending earlier.

Our results show that the additional attrition effects were broadly spread among all types of reservists. Our statistical analysis shows that--other things equal--attrition in NTC units was higher for virtually every subgroup tested. The only group that seems to have unusually high attrition effect are lower quality personnel (category IV and/or non-high-school graduates). This would support the hypothesis that at least a portion of the attrition may be due to loss of marginal performers.

There are four hypotheses for higher levels of unit attrition that arise both from previous research and from the case studies. These are as follows:

- The additional training time required for NTC causes family conflict leading to separation or transfer.
- The additional training time required for NTC causes employer problems leading to transfer or separation.
- The additional training time required for NTC causes increased loss of income, vacation time, or increased threat of job dismissal.
- Tighter physical conditioning, performance, or attendance standards imposed in preparation for NTC lead to transfer or separation of marginal performers.

In this research we identified the causes of higher attrition, but were unable to determine how much each of these causes contributed to the higher attrition.

#### Utilization of Findings:

Results of this research have been briefed to the Director, National Guard Bureau, and several offices in the National Guard Bureau and Army Deputy Chief of Staff for Personnel. These results are also being used to support recommendations for reserve compensation changes to the Sixth Quadrennial Review of Military Compensation.

RETENTION PATTERNS FOR ARMY NATIONAL GUARD UNITS  
ATTENDING THE NATIONAL TRAINING CENTER

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RETENTION PATTERNS FOR ARMY NATIONAL GUARD UNITS  
ATTENDING THE NATIONAL TRAINING CENTER

I. INTRODUCTION

Several initiatives have been undertaken to raise the personnel and training readiness of the Army National Guard. These initiatives include providing improved weapons and training equipment, increased levels of full time manning, increased pay and benefits in the form of enlistment and reenlistment bonus payments and improved G.I. Bill educational benefits, and improved training opportunities. The training opportunities include more participation in European and Korean mobilization exercises and participation in training at the National Training Center (NTC).

Despite these initiatives and record levels of personnel strength, there remains some skepticism whether Guard and Reserve units can achieve the desired level of readiness with the current programmed training time. For instance, there currently exists some proposals in Congress to attempt to raise Reserve and Guard readiness by increasing the time required for training for all units. This increased training time would add to the regular commitment of two days of drills a month and 14 days of annual training.

Increasing the time required of reservists will almost certainly lower retention levels as members encounter more conflicts with employers and families, and their own leisure time needs. Previous research has established that conflicts with families and employers are the two primary reasons Guardsmen and Reservists leave the Reserves. Thus, increased training time might--other things equal--increase training readiness and mission proficiency, but reduce retention and perhaps unit strength.

The National Training Center experience is an important initiative for National Guard units for two reasons. First, it provides the most realistic training short of wartime and the longest sustained training exercises undertaken by Guard units. Thus Units encounter problems and training challenges more directly related to combat sustainment and mobilization missions than are encountered in normal Guard training. It thus provides perhaps the best opportunity for Guard combat units to improve training readiness. Second, it also requires unit personnel to increase training time significantly in preparation for NTC and during the NTC rotation. Thus, it provides a test of whether more training time leads to higher attrition in units.

The National Training Center is the Army's finest training facility. The training consists of two-sided combat exercises pitting a resident Opposing Force (OPFOR) using Russian type equipment and tactics against the training unit. The battlefields feature electronic and video recording equipment matched to laser fired combat equipment (MILES) so that positions of equipment, shots fired and hits are recorded.

The training regime at the center consists of several different types of offensive and defensive battles each followed by extensive debriefing sessions. The debriefing sessions are carried out by Active Army battle controllers and feature online video tapes of combat performance. Units are provided with the tapes and "take home" packages which summarize their performance, training strengths and deficiencies.

The first National Guard unit to attend the National Training Center (NTC) at Fort Irwin, California was the 1-108 Armour BN from Georgia. They attended the NTC in September, 1983. In the months following their NTC rotation, the personnel strength of the unit fell by between 15 to 20 percentage points. This fact was brought to the attention of General Maxwell Thurman, Vice Chief of Staff of the Army, who asked the Army Research Institute to investigate the problem.

This study was initiated to investigate the magnitude of losses from Guard units attending NTC and the reasons for the losses. The study was carried out through case studies for the first seven National Guard units to attend NTC, and a statistical analysis of loss data which compared data from these units and comparable control units.

The critical issue which NTC training surfaced for the Guard is the possible tradeoff between increased training time (and increased training readiness) and decreased personnel strength (and decreased personnel readiness). Guard personnel consist of a small number (less than ten percent) of fulltime personnel and the remaining personnel who participate in the Guard on a parttime basis. Approximately 90 percent of these parttimers hold full time civilian jobs, while the remaining members are either students or unemployed.

Increased demand for time from these part-timers can result in lower retention because of conflicts between Guard duty and family or employer demands. Previous studies of Guard retention have identified employer and family conflicts as the major reason for separating from the Guard. As more time is demanded more individuals will run into these kinds of conflicts.

Guard units usually drill on two weekend days a month and for two weeks during annual training each summer. The NTC training increased the time required in three ways. First unit members were required to deploy for three weeks rather than the usual two weeks for annual training. Second, all units undertake a more intense training schedule in the year preceding NTC--the so-called NTC trainup. This schedule varied among units but at minimum required several extra days of drills over the year period. These extra drills often occurred on a Friday preceding the usual weekend drill period. Thus many individuals had to arrange for time off from civilian jobs for military drills. Third, Officers and senior NCO's were required to participate in many additional planning sessions which could occupy two or three weekends a month or several weekday nights each month. A decrease in retention under these circumstances might be expected.

It is the purpose of this study to attempt to answer several questions concerning possible increases in personnel attrition connected to NTC participation. These questions include:

- Whether NTC units experienced unusual losses in strength and higher than normal levels of attrition.
- Whether these losses could be attributed to NTC participation.
- Whether the loss patterns were different for the seven Guard units attending NTC.
- Whether these different patterns could be attributable to personnel policies of each unit or other economic or extenuating circumstances connected to the NTC rotation.
- Whether losses could be traced to specific family or employer conflicts or possibly other causes.

The research was carried out through case studies of each of the units and statistical analysis of computerized personnel data from the Defense Manpower Data Center (DMDC). The case studies were performed through visits to each of the seven units where interviews were conducted. These visits usually occurred within one year following the NTC rotation. A typical visit was made during a weekend when units were drilling, and separate interviews were held with the unit commander, unit officers, NCO's and junior enlisted personnel. We were not able to interview all groups for all units due to training schedules and time limitations. However, all seven units were visited and interviews were conducted--at minimum--with several individuals from each unit.

The statistical analysis developed attrition models for NTC and comparable control units for the period starting one year prior to NTC to six months after NTC. These models were developed by matching personnel records for these two time periods to determine which individuals were present and which separated. Logistic models were fit to this individual data to control for differences in attrition between different groups and to test for the presence of statistically significant differences in attrition between NTC and control unit personnel. Tests were also run to determine which types of personnel suffered the largest differences in attrition for NTC and control units.

Chapter II contains the seven case studies for the NTC units, while Chapter III contains the results of the statistical analysis for all units combined. Chapter IV contains analysis for each unit separately, while Chapter V contrasts attrition results for three units in the short and long term. Chapter VI contains a research plan for answering some important questions arising from the analysis. Chapter VII contains conclusions and recommendations.

## II. CASE STUDIES OF NTC UNITS

The case studies are provided in the order of the NTC rotation schedule (see Table 2.1). A description of the unit and sources of information is given first. The information from the interviews is then organized around five topical areas. These are:

- NTC Trainup.
- NTC Experience.
- Strength and Retention.
- Organizational Issues.
- Other Issues and Comments.

The primary focus of this study is the effects of NTC training on retention. We focused most of the interviews around topics connected with retention and attrition. However, it is not possible to completely separate what happened at NTC from retention issues. One issue in point is the length of the NTC rotation (21 days) and whether shorter rotations are feasible or desirable from a training and/or personnel viewpoint. Another intertwined issue is whether post-NTC attrition is connected to the particular characteristics of the rotation itself. Rotations which are more difficult,

Table 2.1

### NTC ROUNDOUT BATTALION SCHEDULE

ARNG UNIT	STATE	DATES
1-108 AR	GA	9-22 September '83
2-136 INF (M)	MN	19 April-8 May 1984
1-121 INF (M)	GA	3-22 October '84
2-121 INF (M)	GA	18 March-6 April '85
2-152 AR	AL	1-20 June '85
2-120 INF (M)	NC	26 June-15 July '85
3-156 INF (M)	LA	15 August-3 September '85

perhaps due to weather, accidents, performance, maintenance or other factors, might affect post-NTC retention. Likewise, particularly successful rotations might engender higher retention.

We thus tried to obtain some information about the rotation itself, but reporting this information should in no way be construed as judgements of performance of units. NTC training has the purpose not of evaluating units, but of improving unit readiness through identifying tasks and operations which need improvement.

The scope and comprehensiveness of the interviews differed across units for two reasons. First, we learned from the first units interviewed and modified later interviews accordingly. In earlier interviews we tended to focus on officers and full time NCO's. However, in later interviews, we spent quite a lot of time interviewing parttimers-both junior and senior enlisted. Second, the time available for interviews varied from unit to unit. These interviews were almost all done during regular weekend drill periods in the field. This meant that interviews were arranged around scheduled activities. At times this limited the availability of certain personnel and the time available. However, all units provided excellent cooperation in arranging interviews and access to reservists.

We usually interviewed unit commanders and key officers either individually or in small groups. Interviews with NCO's and junior enlisted personnel were usually done in groups ranging from five to 10 individuals. In all approximately 150 individuals were included in interviews from the seven units.

## GEORGIA - FIRST UNIT

### Unit Characteristics

The first National Guard unit to go to NTC was the 1/108 Armor of the 48th Brigade, Georgia National Guard. Their NTC rotation was in September of 1983. This unit is a roundout unit of the 24th Infantry Division stationed at Fort Stewart. The unit is headquartered in Calhoun, Georgia with elements in Rome, Cedartown, Dalton, and Douglasville. The economy in the area is mainly manufacturing--textiles, carpeting, and trailers with some farming.

### Sources of Information

Our main source of information was interviews with officers of the 108th. We also interviewed two individuals associated with the 24th Infantry Division. The unit's after-action report was also made available as well as the NTC take home package. We also interviewed two individuals who have acted as controllers at NTC.

### Preparation For NTC

The NTC trainup came on the heels of another intense period of training for this unit. In the year prior to the beginning of the NTC trainup, this unit moved from M48's to M60A3's. This training required a more intense training schedule for a period of approximately 1 1/2 years. Two nine day annual training periods were held in March and August 1982 to accomplish this mission. There were also some MUTA-6's<sup>1</sup> in this time period.

The unit was officially notified of their NTC rotation in October, 1982. In the year prior to NTC the unit had a greatly expanded training schedule which included 6 to 8 MUTA-6's or MUTA-8's. Three of these sessions entailed travel to Fort Stewart--an eight to ten hour drive for some units. The major reason for these trips was to practice tank gunnery and tactical movement.

These drills would begin on Thursday evenings and end late on Sunday evening. Equipment preparation and transport to Fort Stewart would be on Thursday evening, followed by three days in the field and return on late Sunday. Many did not leave the Armory until midnight on Sunday. These drills would require unit members to take off work on Friday, and many members found it difficult to be at work on Monday morning. During this period there was also a lot of extra time--both paid and unpaid--put in by Officers and senior NCO's. This additional time was on weekends or week nights, and much of it was for planning meetings.

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<sup>1</sup>A unit training assembly (UTA-1) is a four hour drill period. A normal two-day weekend drill schedule consists of four drills and is referred to as MUTA-4. A MUTA-6 is a three-day drill period.



Several key unit members were also sent to NTC as part of observation teams and as part of rotations of other elements of the 24th Infantry Division. This experience was regarded as crucial to the preparation of the unit for NTC.

The deployment to NTC consisted of an advance team which departed on August 31, 1983. The major deployment was accomplished on September 5 with return on September 25. A team remained to complete the turn-in process and returned on September 28. A total of 870 individuals deployed to NTC.

#### **NTC Experience**

Unit Officers felt the NTC experience produced the highest level of combat readiness in the history of the unit. They thought that readiness was substantially improved despite losing approximately 15-20 percent of strength during or shortly after the NTC rotation.

One of the major problems encountered at NTC was fatigue of key personnel and the inability of second line personnel to replace them in their absence. Officers described it as a problem in depth of personnel under stressful conditions. We learned that training and preparation of backup personnel was extremely important. Guard personnel are generally not used to maintaining intense field performance for a 14 day period. Their 14-day annual training period does not usually include continuous training for the entire period, and is certainly less intense than NTC.

There also appeared to be a problem with the performance of certain NCO's. Part of the problem was inadequate physical conditioning, especially among the older NCO's. Some NCO's were transferred into easier positions either before or during NTC to solve part of the problem.

Two additional problems mentioned were coping with the terrain and desert--both markedly different than that encountered at Fort Stewart--and the equipment check-out and turn-in process. Night movements were particularly difficult to execute. Individuals thought the equipment check-out and turn-in was too long and did not respect the Guard unit's time. Equipment check-out took three days, while turn-in occupied four days. Many wondered whether the process could be considerably shortened and the length of the rotation reduced. The issue of different standards at check-out and turn-in was also raised, many believing that the time spent at turn-in was bringing the equipment to a higher level of repair than at check-out.

#### **Retention and Strength**

Officers stated that the unit declined in strength about 15-20 percent from around 110 percent of strength one year before NTC to around 95 percent six months after NTC. There were several contributing factors advanced for the decline. They included:

- The effect of the increased training pace on retention of personnel.
- The increased tempo of the economy.
- Slackened recruiting and retention effort arising from the increased training activities.
- Transfer or separation of personnel prior to NTC who were marginal performers.

This unit took a "hard line" approach to the issue of retention in the trainup period. Individuals generally were not allowed to separate prior to NTC, and employer and family conflicts were not accepted as excuses for not going to NTC. The feeling was that individuals in the Guard had an obligation to serve in hard as well as easier times. Individuals were allowed to separate in the period following the return from NTC, and many did.

Family and employer conflicts were listed as the chief reasons for voluntary separation from the Guard. Employer conflicts were exacerbated by the pickup in the economy during the NTC period. The unemployment rate in Georgia decreased from September, 1982 to September, 1983. This pickup in the economy meant that carpet and textile mills and trailer manufacturer's began operating at higher capacity. This made it harder for Guard personnel to obtain time off, and many lost attractive overtime opportunities. One particular problem was that a few manufacturers employed up to fifteen Guard personnel. Their combined absence presented a severe problem to meeting production quotas. The timing of the NTC rotation during September also caused problems for teachers, students and farmers.

The unit attempted to anticipate part of these problems through an employer program. Letters were sent to all employers by the Governor or from Senator Nunn's office. Individual problems were handled on a case by case basis--mostly through personnel contact with employers. More problems arose with smaller employers than large employers. It seemed easier to substitute for missing employees in larger organizations. However, problems also arose in larger companies from first line supervisors. While these companies often pledged support of Guard at higher levels, this support was more problematical at the supervisor level.

Families problems also arose, and there was a less structured way to handle these types of problems. One soldier was deserted by his wife and three kids three weeks before NTC because of these problems. One of the problems seemed to be scheduling of NTC and extra drills. There was reference to changes in NTC schedules up to two months prior to deployment, and extra drills were often not scheduled far in advance. This scheduling problem made it more difficult for Guardsman to plan family time and to provide employers reasonable notice. There was also some sentiment expressed that Guardsman don't always communicate effectively with spouses and employers concerning training schedules--even with sufficient advance notice.

Another hypothesis concerning falling unit strength was slackened activities in recruiting and retention during the NTC period. Basically normal recruiting and retention effort was given low priority in order to focus on NTC training. This recruiting and retention effort takes a significant amount of Officer and NCO time, and that time was not available during the NTC trainup. It was also the case that new recruits brought in during this period probably would not complete basic and AIT training in sufficient time to also get ready for NTC. So recruits could not help meet NTC strength goals. Thus there was reduced incentive to recruit during this period.

The final retention issue was involuntary transfer or separation of marginal performers. Some thought that NTC training provided an opportunity to get rid of these type of personnel. Some senior and older NCO's used this opportunity to retire from the Guard. Others were transferred to other units or encouraged to separate. Part of these problems involved physical conditioning and stamina. Thus part of the strength reduction was due to more stringent screening of personnel and performance, and might enhance unit readiness. However, officers also stated that some very good people also quit.

#### **Organizational Issues**

For the unit the major organizational issues appeared to be attempting to meet both the demands of the 24th Infantry Division regarding its training mission and the demands of the Georgia National Guard. The demands to fulfill IG inspections and other requirements from the Georgia National Guard did not let up during this period. On the other hand, some problems were encountered with the 24th in scheduling training at Fort Stewart and at NTC. Guard Officers felt that the active components did not understand the need for advance notice for drills, and the sensitivity of Guard to employer and family problems. There were also some initial problems with funding procedures between the Georgia National Guard and the 24th. The 24th compiled the cost to them of the NTC rotation which came to 20,000 manhours and about \$650,000.

#### **Other Issues and Comments**

There was unanimous opinion that the NTC experience raised unit readiness despite the strength reductions. It was considered a watershed event for the unit. It was felt that the strength loss was short term and could be regained, and that there were compensating long term effects on training readiness from the NTC experience. The rotation improved the pace and emphasis of training back at home station. It was thought that there would be better selection of officers and enlisted personnel in the light of the NTC experience, and that the closer relationship with the 24th would have many benefits. The Officers thought that every three years was the appropriate pace for NTC training. More often than three years would have marked effects on unit manning.

Many individuals referred to the fact that this was a "new Guard." They definitely have the feeling that the "beer and barbecue" days are over, and that Guard participation will be more demanding in the future. There was concern that families and employers still had the old image of the Guard, and did not understand the change.

They also worry that individuals join the Guard under an expectation that two days monthly and 14 days of annual training are required. Some thought the Guard was breaking a contractual commitment by NTC training, and that this type of training should be known "up front" at enlistment or reenlistment.

## MINNESOTA

### Unit Characteristics

The 2/136 Mechanized Infantry Battalion with headquarters company in Moorhead, Minnesota was the second National Guard unit to train at NTC. NTC training was conducted between 18 April and 8 May 1984. The unit is a roundout unit to the 1st Infantry Division at Fort Riley. The units associated with the 2/136 are located in Wadena, Fergus Falls, Thief River Falls, Crookston, Bemidji, Park Rapids and Detroit Lakes. State Office personnel stated that the 2/136 was an outstanding unit--part of the reason they were chosen for early NTC training.

The major state training ground is Fort Ripley--a distance of about three hours from the farthest unit. Fort Riley, Kansas is too distant from Moorhead for combined training, but elements of the 1st Infantry traveled to Fort Ripley for weekend training sessions.

The two major industries in the locale of the units are farming and tourism. Many of the unit members were either farmers or worked in companies and stores associated with farming. The timing of the NTC tour during the planting season was a particular problem for the farmers, although not necessarily bad for those in tourism. There were also many students and teachers among unit members, for which an April AT was a problem.

### Sources of Information

We visited the Minnesota State National Guard Office in St Paul on August 11, 1984 where we interviewed state retention and recruiting officers. We visited the HHC of the 2/136 on September 11, 1984 where we talked to over 30 of the fulltime NCO's and the unit commander.

## Characteristics of NTC Rotation

**Preparation for NTC.** The intensity of the trainup for NTC was much less for this unit than for the first Georgia unit. This reduced intensity was attributable primarily to three factors. First, the trainup for mechanized infantry units is inherently less complex than for armor units. Secondly, the Minnesota unit did not go to the location of their roundout unit at Fort Riley for training exercises in contrast to the many trips the Georgia unit took to Fort Stewart. Rather all training was held at the state training ground--Fort Ripley--a distance of less than three hours from unit elements. Personnel from the 1st infantry roundout unit came to Fort Ripley to participate in training exercises with the 2/136. Finally the unit was able to devote their entire Annual Training period--17 days--in August, 1983 to training for NTC. This relieved some of the burden from weekend drills.

The lessened intensity of the trainup was reflected in two other factors. The Minnesota unit had fewer additional MUTA's and much less equipment to transport to training areas. All additional MUTA's were MUTA-5's which included only Friday evening. This meant that regular working hours were not interrupted. A total of 9 MUTA-5's were held during the trainup.

From the standpoint of the Guard personnel, the initial attitudes of the active elements toward the trainup presented a problem. Active unit personnel had recently attended NTC, and appeared to instill an unwarranted fear and generate a very hard-nosed approach toward participation at NTC. Guard personnel gradually overcame this problem by sending some of their own personnel to NTC and making some important policy decisions with respect to unit personnel participation at NTC.

Three decisions appeared critical. The first was to make liberal use of "fillers" in the unit when attending NTC. Approximately 150-175 of the 750 personnel who attended NTC were fillers from other units. Most were from other Minnesota units, but others came from Illinois, Iowa and Wisconsin. Fillers were used to bring the unit--which was at 93 percent of strength--to full strength. Fillers also replaced two types of personnel in the unit--those not yet trained and those who could not attend due to job or family conflicts or other problems. Estimates of the size of these groups were 50 to bring the unit to full strength, 90 to replace untrained personnel and 25 who had conflicts or other problems. The more liberal use of fillers probably allowed an easier attitude toward legitimate conflicts, and may account for the reduced retention losses experienced. The extent to which it detracted from the unit training experience is not clear. The fillers did attend one weekend training session with the unit.

The second decision was to develop a tighter deployment schedule for NTC. Deployment was in three phases: an advanced detachment and two regular deployments. The latter was done so that approximately 100 individuals had to be at NTC for only 15 days. These individuals were present for the entire training exercises, but missed the convoy, equipment draw and turn-in. Special transportation was required to deploy in two phases, and the advanced detachments actually spent more than three weeks at NTC. This policy also

aided in handling employer and family problems, and probably helped unit retention.

A third decision was to assign two additional full time personnel to the unit during the trainup period. These personnel were mentioned several times as being critical to handling the additional workload associated with NTC.

#### **NTC Experience**

Members thought that the NTC experience was the most realistic and best training they had experienced as Guardsman. Pride, unity and a sense of satisfaction resulted from NTC training. While very positive about the NTC training experience itself, they were somewhat less enthusiastic than the Georgia personnel. The positive aspects included the realism of the training--especially the taking of casualties--and the training in multi-unit coordination. The number of casualties were particularly eye-opening. Personnel thought that the NTC experience improved the seriousness and professionalism of training in the post-NTC period.

Some personnel at the state office raised the question of the cost-effectiveness of the training in relation to other training programs like CAPSTONE, exchange programs with the actives and KEEPUP. Joint exercises with their active roundout units at Fort Ripley were also mentioned as important.

Similar to the Georgia unit, unit personnel were uniformly critical of the civilian workforce at NTC, the condition of the equipment, the quality of the maintenance and lack of spare parts. They were also indignant at not being able to use the PX at Irwin, and sensed a double standard in certain policies between Guard and Active personnel.

Unit personnel believed that NTC rotation could be profitably held only every three to four years. The intense effort was partly achieved because it was a one time occurrence. Holding NTC training more often would cause much higher retention losses for the unit.

#### **Logistics at NTC**

The most complaints about the NTC experience concerned equipment draw and turn-in and the condition of the equipment. Personnel felt that too much of the 21 day training period--six days--was concerned with equipment draw and turnin. The major complaints were the following:

- Standards for turning in equipment were much more stringent than at the draw.
- Civilian personnel were a major problem--both in attitudes and their working hours. Much resentment was expressed over their 8 to 5 workday with one hour for lunch when time was so important to Guard personnel.

- Obtaining adequate spare parts during the battles and turn-in were a problem.
- Inadequate number of personnel for maintenance and repair at turn-in.
- Some equipment broke down in transit to the position of the first battle.

### Retention and Strength

Unit percentage strength declined from 99.6 in July, 1983 to 93.6 in July, 1984. Drop in percentage strength was higher for officers (from 104.8 to 90.5) than for enlisted (from 97.8 to 94.4). During the same period the state percentage strength only dropped from 92.2 to 90.5.

The major problems cited by unit personnel were family and employer problems. Additional time for weekend training and the three week NTC training period created problems for unit personnel in budgeting time between family, employers and school. A particular problem was the timing of the NTC rotation. Many unit members were involved in some way in agriculture--either as farmers or as employees of businesses connected with agriculture. Others were either students or teachers. The April/May period is a particularly intense period for farmers--planting season--and the end of the semester for students and teachers. Retention problems could have been alleviated somewhat by a rotation at a different time.

The increased time commitment and NTC experience seemed to be much harder on older NCO's and Officers than on younger men. Three factors seem to be present here. The first is that much of the planning and management of NTC falls on these individuals. This requires extra time in evenings and weekends over and above the regular MUTA's. These individuals were also the ones needing TDY for trips to Fort Riley and NTC and extra training. Secondly, the NTC experience takes a toll on older individuals not in peak physical condition. Third, as one retention NCO stated, "key personnel in the Guard are also key in the civilian community." Additional time may be difficult to take off from civilian jobs.

The state and unit attempted to alleviate some of the family and employer problems by several programs. Personal contact was established with employers about training schedules and Points of Contact established between NTC and families. A family evening was held about the NTC training. Additional advertising and publicity was undertaken both prior to and after NTC to help reach families and employers. The fact that the NTC rotation occurred over Easter did not help family issues. Single parent soldiers had a particular problem.

Part of the retention problems were attributed to the additional workload of preparing for NTC. Ordinary recruiting and retention tasks, such as counseling, were not performed. Recruiting of nonprior service personnel also

seemed to decline during this period. There were 182 new unit members in Aug to July, 1982-3 compared to 138 during the similar NTC period. The largest decline was in nonprior service personnel.

The unit commander stated that some people were encouraged to transfer or leave the unit after the annual training period in 1983. These were people who could not do the job, or were not going to be available during the NTC trainup period.

#### **Relationship with Active Roundout Unit**

The active personnel participating in the trainup had been among the first units to attend NTC. The way in which this experience was communicated and the attitudes toward training the Guard personnel were viewed as major problems during the initial part of the trainup period and the 17 day Annual training period in 1983. Guard personnel felt that the actives were unnecessarily strident, hard-nosed and derogatory. The upcoming NTC experience was pictured as something to be feared and some exaggerated stories told about NTC. Some Guard personnel said that the 17 day Annual Training was actually harder than the NTC training. The actives also took a dim view of some of the problems unique to the Guard such as employer and family conflicts.

A major effort was required by the unit leaders to restore morale and a realistic picture of NTC after the Annual training period. This was done by sending unit personnel to NTC to observe rotations and learn procedures, establish closer coordination with the actives at Fort Riley, visit the Georgia Guard unit, and adopt personnel and deployment policies which took account of Guard personnel constraints.

Another initial problem was the allocation of additional funds for the NTC trainup. Additional funds were needed both by the active and Guard units. Negotiations were required to determine allocation of expenses between active and Guard budgets. The 1st division estimated that a total of 5400 mandays of effort--not including travel--was expended by their personnel in support of the Guard NTC effort.

Once these problems were overcome, the relationship appeared to work well. The Guard was complimentary of the time and effort spent by personnel of the 1st Infantry in training at Fort Ripley, in special training for certain personnel help at Fort Riley and coordination during the NTC experience. On the whole, the relationship seemed to improve over time.



## GEORGIA - SECOND UNIT

### Unit Characteristics

The 1-121 Mechanized Infantry BN was the third National Guard unit to attend NTC. It attended NTC in October, 1984. It was the second Georgia unit to attend NTC. The unit has its HHC in Dublin, Georgia with elements in Eastman and Milledgeville. It is a roundout unit to the 24th Infantry Division at Fort Stewart.

### Sources of Information

We interviewed officers, NCO's and junior enlisted personnel for this unit in the field at Fort Stewart. Approximately 30 individuals participated in the interviews. We also had the take home package and after action reports for this unit.

### NTC Trainup

Trainup for NTC started in September 1983--one year before deployment. The unit trained at Fort Stewart on six weekends during this period. These training sessions were MUTA-6's beginning on Friday morning and ending on Sunday evening. This schedule constituted four additional MUTA-6's over a normal training schedule. The unit HHC is about 110 miles from Fort Stewart, while the farthest element is about 220 miles.

The NCO's and Officers spent much additional time on weekend and week-days planning for training and NTC. One NCO estimated he had put in 21 additional days while one Officer estimated 135 extra days above regular drills during the year. Another stated that the staff of the battalion had lived at Fort Stewart. An observation group of 30 from the unit spent one week at NTC during the trainup. There was fairly close coordination between this unit and the previous Georgia unit that attended NTC. Individuals stated that they learned a lot from the 1-108th.

### NTC Experience

All personnel interviewed thought the NTC experience was the best training experienced as Guardsman. Typical comments included:

- The NTC experience was the best thing that has happened to the Guard.
- We did things I didn't think we could do.

The realism of the training, live fire, the intensity and duration of the exercise and the ability to plan and execute in large task force groups were mentioned as key elements of the training.

This unit had severe problems with maintenance. Part of this was attributed to bad equipment at draw. The equipment used at Fort Stewart was viewed as being in better shape than that at NTC. The equipment and maintenance problems continued throughout the rotation and turn-in. The unit left 30-40 people--a mix of fulltimers and volunteer part timers--behind for up to two weeks to complete the turnin. The maintenance problems were partly attributed to the inexperience Guard units have in field maintenance. Equipment does not break down in drills, and if it does it gets repaired by fulltime maintenance crews or Fort Stewart personnel. Boeing personnel also came in for their share of blame.

The unit seems to have had some problem with physical conditioning, sleep and stress during the rotation. Some Officers and NCO's generally got inadequate sleep partly because of the absence of strong "second string" personnel. On the other hand this unit seemed to have less problem with night movements and navigation.

One of the strong lessons emerging from the training--besides maintenance--was the importance of maintaining individual's MOS skills. Several crucial tactical mistakes were attributed to the failure of individuals to execute skills they were trained to perform.

Some irritants mentioned include:

- Lack of access to base facilities and PX.
- Inadequate shower facilities in dust bowl--no hot water.

#### **Retention and Strength**

The unit headed into NTC trainup understrength. The major personnel changes made early in the trainup were transfers of several officers in order to bring a new team on board. The unit commander felt it essential to have a cohesive and dedicated group of officers for NTC, and he recruited individuals from other units. Estimates from Officers were that the unit lost 5 to 7 percent of strength during the NTC trainup and rotation. These losses were attributable to employer and family conflict, and some transfers and separation of individuals not in physical condition or unable to commit themselves for the time necessary for NTC training. Twenty individuals were excused from NTC due to employer or family conflicts. The unit took about 35-40 fillers from other Georgia units.

Several of the more specific employer and family problems talked about in the interviews were:

- Most lost money because military pay did not make up for lost civilian pay.

- Some used leave without pay to go to NTC.
- Some used personnel vacation time for Friday drills and NTC.
- Two individuals working shifts--one at a state prison--who routinely do not get off weekends find conflicts often with Guard duty.
- An individual who usually gets weekly bonus payments (\$200-300) associated with team quotas (trailer manufacture and assembly), found that Guard duty on Friday put the whole weekly team bonus in jeopardy.

#### Organizational Issues

This unit seemed to develop a strong relationship with their active roundout units. They thought they received excellent support and training from personnel of the 24th Infantry Division. On the other hand they seemed to have a more strained relationship with their Guard Brigade Personnel. Clearly, a sort of bonding begins to occur as units participate in intense and close training exercises. This clearly was happening with the active and 1-121, but perhaps at the expense of the regular Guard organization. It perhaps was a manifestation of the "Old vs. New" Guard, as some of the comments involved differences in professionalism and performance. It might be expected that as units obtain more proficiency under active tutelage, that this kind of strain and allegiance switching may develop.

#### Other Issues and Comments

Individuals felt that junior personnel are not really adequately prepared for NTC. There are many--perhaps unspoken--fears to be dealt with such as heat exhaustion, scorpions, etc. Whether these fears play a role in retention before rotation is not known, but some felt that more information aimed at the junior enlisted was necessary. Films of NTC would be helpful as well as communication with other soldiers who have been there. Including junior personnel as part of advance teams was also mentioned.

The disparity between the "Old and New" Guard was mentioned several times. There is not an understanding that the Guard is a military, combat organization with new training requirements. Both employers and families still relate to the old "beer and barbeque" units.

The unit was going to shortly transition to the Bradley fighting vehicle. Many think it will be tougher than the NTC trainup. Planning sessions will take two to three weekends a month and learning the maintenance will be difficult. Some saw more fulltime manning as a potential solution. The unit currently has 32 out of 800 fulltimers. Doubling that might be necessary to keep up both the NTC rotation pace and the challenge of new combat equipment.

## **GEORGIA - THIRD UNIT**

### **Unit Characteristics**

The 2-121 Mechanized Infantry BN headquartered in Albany, Georgia was the fourth National Guard unit to attend NTC. It was also the third unit from Georgia to attend NTC. It attended NTC in March/April of 1985. The unit is a roundout unit to the 24th Infantry Division headquartered at Fort Stewart, Georgia. Elements of the unit are located in Tifton, Valdosta, Fitzgerald and Americus.

### **Sources of Information**

We interviewed officers, NCO's and junior enlisted personnel for this unit in the field at Fort Stewart. Approximately 35 individuals participated in the interviews. We also had the take home package and after action reports for this unit.

### **NTC Trainup**

Training for NTC began with two AT periods of nine days each in March and August of 1984, both at Fort Stewart. There were a total of 60 MUTA's rather than the routine 48 in the year before NTC. These included three weekends with MUTA-6's at Fort Stewart. The unit headquarters was 150 miles from Fort Stewart, so these weekends would start at 6:00 A.M. on Friday and end around 9:00 P.M. on Sunday.

The trainup placed additional burdens on senior NCO's and Officers. In September, October and November most weekends were involved with planning. Some officers stated that they only took Thanksgiving and Christmas weekends off in this period. Approximately 45 people also flew to NTC for recon and orientation. These individuals stayed between five to seven days. These trips included both full- and part-timers.

Extra time was also required for certain individuals to become MOS qualified. Many were required to attend Army AIT schools prior to NTC in order to obtain their qualification. This necessitated time off from jobs.

### **The NTC Experience**

The NTC experience was seen as quite beneficial to the readiness of the unit. It was the best training the unit had experienced, and the effects were being carried into the future training strategies for the unit. This included both specific areas where training should be focused and a general attitude of pride and importance attached to training.

Another effect of the NTC rotation was the eliminations of marginal performers--some "old Guard" type personnel. It was also felt that the selection of new personnel into the unit and promotions would be judged differently than in the pre-NTC days. More emphasis would be put on youth, performance and dedication.

This unit seemed to have the easiest time with equipment checkout and turn-in--one of the major problems encountered by previous unit. Both were accomplished in the required time. Some equipment did need repair prior to going to the field. Equipment turn-in was carried out in three days. Some stated that had spare parts been available turnin could have been done in two days.

The success was attributed to good preparation, team effort, around the clock work, and additional people at checkin. A strategy was adopted that put emphasis on maintenance in the field during the rotation--turn-in starts on day one. One additional factor was flights of C-130's every five to seven days from Georgia to NTC. These flights carried personnel, equipment and spare parts.

There were also no complaints about Boeing personnel from this unit. It is not clear if this was due to the superior job done by this unit in handling the equipment draw and turn-in, or if Boeing applied different standards to some units. One individuals stated that Boeing worked in cycles, tightening standards every third unit so that equipment would get repaired.

The major performance problems encountered at NTC included night movement, navigation and communication in the unfamiliar mountain and desert terrain, fatigue of key personnel with little backup available, and handling gas attacks.

The controllers at NTC were seen as hard, but fair. The feedback system to officers and NCO's in debriefing sessions was excellent. The experience of the junior enlisted appeared not to be so favorable. Many seemed not to have a sense of the quality of performance or a sense of where improvement was needed.

There seemed to be little problem with physical conditioning encountered at NTC. This was partly due to a weight control program prior to NTC and some pruning of personnel before rotation.

Several more routine complaints on rotation involved late mail calls, lack of access to telephone for calls home, food quality and lack of free time in California.

## **Retention and Strength**

The unit was at 97 percent of strength one year prior to NTC and achieved 100 percent of strength shortly before NTC. The unit deployed 790 people to NTC. Only 25 of these were fillers. The fillers came from other units in the brigade and were mostly maintenance and medical personnel.

This unit seemed to have less trouble with family and employer problems than other units. This is partly due to learning from other Georgia units and better anticipation and planning. More of the trainup seemed to be accomplished in the two AT periods of nine days, and less fell on weekends. This reduced weekend burden was also aided by being closer to Fort Stewart than the other Georgia units. Personnel also thought that good advance scheduling was important to alleviating family and employer problems.

There were however several problems with employers and families mentioned by the individuals interviewed. These included:

- Trouble with first line supervisors even though companies support the Guard.
- Many lost money during NTC rotation because military pay does not make up for civilian pay.
- Some employers refused the extra week of military leave and individuals had to take Leave Without Pay.
- Some individuals took vacation time for either NTC or MUTA-6's.
- Individuals with working wives had problems because vacation time was taken to go to NTC.
- One individual had conflicts with child custody arrangements on weekends of Guard duty and during NTC.
- There were several complaints about the timing of drill, AT and NTC pay. One went without pay for seven months, and two others had problems with bonus payments.

On the whole, officers thought that NTC participation was a positive recruiting tool for junior enlisted personnel, but neutral to negative for NCO's and Officers.

## **Organizational Issues**

The relationship with the 24th Infantry Division was satisfactory. There was a feeling that the 24th was somewhat less helpful in training for NTC than might be expected because of a rotation of personnel which left the 24th with few individuals having NTC experience. The Georgia National Guard provided all equipment, funding and support required for this unit.

## Other Issues and Comments

The "Old and New" Guard issue was raised several times in the conversations. Most families and employers did not understand the need for or pace of the NTC training. Some employee supervisors were often former Guard members who still carry the old image. A strong feeling existed that effort is needed to inform family and employers of the new commitments required from Guard members and the reason for it. Many felt that the rules had changed since they joined on the time required for participation, and felt somewhat unfairly treated. However, part of the problem was the lack of understanding of families and employers.

NTC rotations every three to five years were recommended by unit members. More often than three years would cause severe retention problems, while less often than five years would lessen the training edge of units. In the next rotation, officers would carry more of their own equipment out rather than depend on Boeing.

Several thought that junior enlisted were not properly prepared for NTC. These individuals were most likely to have fears of NTC--everything from desert atmosphere to scorpions. Many had not been out of Georgia and were most likely to encounter new experiences. One particular problem for this unit was that an enlisted member had been killed in an accident on the rotation of the previous Georgia unit.

While many officers and NCO's traveled to NTC for orientation, junior enlisted had to depend on slide shows. Some thought that some of these fears caused a retention problem for which families and employers were a convenient excuse. Better orientation might include movies of NTC, some advance travel to NTC, visits by junior personnel of other units who have attended NTC and attendance with earlier rotating units.

## ALABAMA

### Unit Characteristics

The 2-152 Armor BN was the fifth National Guard unit to attend NTC. It attended in June, 1985. This unit is a roundout unit of the 5th Infantry Division at Fort Polk, Louisiana. It is headquartered at Oneonta, Alabama. Elements of the unit are in Attalla, Springville, Heflin, Centre, and Gadsden. Employment in the area consists mainly of small scale manufacturing and service sector jobs. There is little farming in this area.

### Sources of Information

We interviewed Officers and full time NCO's at HHC in Oneonta. Due to scheduling problems, we were unable to attend a weekend drill and interview a more diverse group of unit members.

## NTC Trainup

The decision to attend NTC was made in January, 1984--almost 18 months prior to attendance. The trainup period lasted from February, 1984 to May 1985. Both Fort Polk and Fort McClelland were used for trainup. Fort Polk is approximately 500 miles, while Fort McClelland is less than 100 miles.

Fort Polk had to be used for gunnery due to the presence of A-1 tanks and the lack of space at Fort McClelland. The unit was used to training on M-60's at Fort McClelland, but would be required to use A-1's at NTC. Gunnery training involved about 50 members per company and two MUTA-6's were held for each group at Fort Polk. These were three day weekend sessions beginning on Friday morning and ending on Sunday evening. The weekends at Fort Polk seemed particularly difficult--harder than NTC according to some unit members. In addition, extra training was held at Fort McClelland involving at least one MUTA-5 and a MUTA-6. Extra weekend drills were held in March and May, 1985.

Additional time was demanded of Officers and NCO's for planning sessions. Meeting were held almost three weekends per month during the last six months before NTC. In addition scores of individuals attended special school--logistics, supply, etc. Almost 150 individuals from the unit who deployed also participated in previous deployments--usually with elements of the 5th Division. Groups of 35 and 17 people were also taken to NTC for observation for 5 and 7 day periods during trainup.

## NTC Experience

NTC experience is now considered essential by unit Officers for preparing for mobilization missions. One Officer commented, "We were fooling ourselves four years ago that we were ready for combat." Many problems were encountered at NTC which were new--which the unit would never run into in normal drills and AT. This was due to the realism of the training (live fire), the intensity and the extended time period.

Unit Officers thought that their tactical operations were stronger than maintenance or command and control. Normal Guard operations do not produce that much stress on equipment, and Guard personnel have little experience with field maintenance. Guard units also do not normally get to exercise command and control tasks associated with larger task force operations.

The unit did not run into any physical conditioning problems due partly to early screening of unit members. It was also pointed out that armor units can get by with less in the way of physical conditioning than infantry units. The unit did seem to have similar problems with fatigue and sleep as most other units.

Problems encountered with equipment draw and turnin seemed more serious than for other units mainly due to a strike of Boeing civilians. The equipment turn-in took 10 days with much of the work being done at night due to the heat. Individuals got only 3-4 hours of sleep a night. Part of the



problem was obtaining the necessary spare parts with civilians on strike. It was a fairly unpleasant experience accomplished only by a rear guard party made up mostly of full-timers staying long after the main body deployed back to home unit.

#### **Retention and Strength**

Almost 600 individuals from the unit deployed to NTC. There were about 10-15 unit members who could not go because of employer or family conflicts. The unit obtained 42 fillers from Alabama, Montana and New York. The latter individuals were obtained through letters of invitation from the Adjutant General of North Carolina to his counterparts.

Strength of the unit dropped during the NTC trainup and in the period after the rotation. Strength was around 105 percent in Jan, 1984 and it hit a low of 87 percent in the period after rotation. It has since risen to around 91 percent of authorized strength. Losses came from three sources: employer and family problems and marginal performers.

The unit went through a pruning process early in the NTC trainup period to separate or transfer individuals who either were physically unfit, marginal performers or could not make the commitment of time for NTC.

Letters were sent to all employers from the governor and Adjutant General relating the schedule and details of the NTC training. A family day was also held to discuss NTC. Despite this, there was a moderate loss of personnel after the completion of the rotation. Some of the employer and family problems included:

- Family problems primarily encountered by NCO's and Officers who were attending extra weekend sessions.
- Many people transferred to other units to obtain less stressful assignments.
- Many were required to take annual leave rather than vacation time.
- Loss of pay due to NTC attendance.

One individual commented that the losses would not be as high next time the unit attends NTC because there would be fewer marginal performers. The unit will be more careful in recruiting, selection and promotion and maintain higher standards for performance. It therefore will not be necessary to prune the unit prior to the next NTC trainup.

## **Organizational Issues**

The relationship with both the 5th Division and North Carolina National Guard seemed to go smoothly.

## **Other Issues and Comments**

Many Officers thought that the NTC rotation could be streamlined for Guard units to about a 17 day rotation. This would include better equipment draw and turn-in, with smaller groups going in advance and staying after.

## **NORTH CAROLINA**

### **Unit Characteristics**

The 2-120 Mechanized Infantry unit was the sixth National Guard Unit to attend NTC. It attended NTC in June, 1985. It is a roundout unit to the 4th Infantry Division located at Fort Bragg. It is headquartered at Clinton, North Carolina and has elements located at Lexington, Hickory, Morgantown, Wilmington and Mt. Airy. Industry in the region includes furniture, textile manufacture, and banking.

### **Sources of Information**

We interviewed Officers, NCO's and junior enlisted personnel in the field at Fort Bragg. Approximately 25 individuals participated in the interviews.

### **NTC Trainup**

Trainup for the 2-120 started at Annual Training in July, 1984 which was a nine day exercise held with the 4th Infantry division at Fort Bragg. The normal drill schedule consisted of 4 weekend MUTA-5 drills a year at Fort Bragg, but during the NTC trainup, the unit had 6 MUTA-5 drills at Fort Bragg. These would begin on Friday afternoon and extend till Sunday evening. These units could accomplish these extended sessions with MUTA-5's because the unit HHC was a distance of 175 miles from Fort Bragg with the farthest units up to 225 miles away.

There were a total of 8 extra drills during the year preceding NTC. However the schedule for the NCO's and Officers was much heavier. These individuals spent a minimum of two to three weekends a month in planning sessions. About 150 people from the unit went to NTC for observation or as part of another rotation. Most attended as observers during a rotation of a unit of the 4th Infantry Division in September, 1984. Unit personnel also spent time with units from Georgia and Minnesota discussing their NTC experiences.

## NTC Experience

The training was described as the best and most realistic training the unit had experienced. It was unique in that it tested all elements as a whole to find critical weak points. The training has markedly changed the pace of training at home. Training was described as more intense and more urgent since NTC. The unit has learned how to get things done more efficiently, minimize downtime and take every opportunity to learn.

The controllers were described as frank, hard, fair, factual and constructive. There were several lessons learned from NTC. This included the value of improvisation in the less structured situations which occurred at NTC, but were less likely to occur in the previous, more structured training exercises. The value of good planning and proper execution of logistics--including everything from field maintenance to understanding the paperwork for requisitioning--was evident in the comments.

Problems encountered during the tactical battles included some problems with fatigue, land navigation, and loss of early battles. The unit felt that they recovered from these losses and took the lessons learned and improved in the later battles. The unit would probably place even more emphasis on maintaining and repairing equipment in the field during the next rotation.

It was noteworthy that this unit seemed to overcome some problems which had occurred in previous unit rotations. The fatigue problem seemed to be not as severe as with earlier units. Physical conditioning and night movements were two other areas given special attention during the trainup and avoided at NTC. The physical conditioning emphasis was particularly important since temperatures were unusually hot--124 degrees during the daytime. Part of the physical conditioning emphasis meant separating several NCO's prior to trainup. There were only two heat-related casualties during the rotation.

The major problems encountered at NTC involved the equipment draw and turn-in process. This problem was partly caused by a strike by civilian employees of Boeing which started prior to this rotation and ended near the end of the rotation. Equipment was checked out by supervisors, and the some of the equipment needed maintenance before going to the field. The unit spent two days of the draw repairing equipment prior to taking it to the field. Some thought they had got stuck with the maintenance of the prior unit.

At the equipment turn-in, the civilians returned and some thought the unit received unfair treatment because of the problems between the civilians and management. The unit had sent eight additional fulltime people from the state to help with the turn-in. Despite this, the turn-in took six full days working 24 hours a day. There was much bitterness about the lateness of arriving spare parts which came in the last two days. Many felt that the bitterness of the turn-in process had caused retention losses shortly after return from NTC.

Some of the usual complaints about certain irritants at NTC include:

- Lack of access to and inadequate shower facilities.
- No time off after rotation.
- No access to PX facilities--souvenirs, etc.
- Better treatment of officers and active members.

#### Retention and Strength

The unit deployed 700 unit members to NTC out of 850 total unit members. Only 20-25 unit members could not attend due to family or employer problems. Individuals needed letters from employers in order to be excused, and only the unit commander could excuse a unit member. Most of the remaining unit members not attending were new recruits not yet finished with training. There were 86 fillers which attended with the unit--all from the North Carolina National Guard.

Unit strength was at 93 percent of authorized one year before NTC and was approximately at the same point in March, 1986. However, this was partly due to an intense recruiting campaign in November 1985 to January 1986 which resulted in 150 new recruits. Everyone interviewed thought that the NTC experience had caused additional losses to the unit.

The unit had taken the initiative early in the trainup to transfer or separate individuals who were marginal performers, not in physical condition or who could not sustain effort during the entire process. This included seven to eight NCO's, two first sergeants and some junior officers.

There were lots of people who left the unit after return from NTC. Some transferred to other Guard or Army Reserve units, and some separated from the Reserves. Family and employer problems were stated as the predominant reasons for these losses. Some problems included:

- Employees of furniture plants missed vacation because timing of plant closing for vacation (July 4 period) had conflicted with NTC and the previous year AT.
- Harassment from work team members because of missing work.
- Conflict between Guard duty and child visitation rights.
- Conflict between Guard duty and regular job demand to work every other weekend.
- Problems with first line supervisors in larger companies who support the Guard.

- Single parent problems taking care of children during NTC .
- Individual who took new job whose schedule created a conflict.
- Many individuals who lost money during NTC and trainup because of leave without pay, lost civilian regular and overtime earnings.
- One individual who thought Guard duty played a critical role in not obtaining custody of children.
- An individual who was self employed in construction business and lost substantial business during NTC period because of time put in--only two weekends off between December and May.
- A father who was unable to attend any of his son's football games.

Many individuals spent 30 working days for the NTC rotation because of the need for both advance participation in loading and extended time at equipment checkin and unloading at home station.

The unit had undertaken several initiatives to ward off employer and family problems. The most important of these was early notification of employers and families (in December 1984) about the NTC schedule. Potential conflicts were handled on an individual basis. Difficult cases were handled by the unit commander who alone could give permission for missing NTC. In addition employer and family days were held to provide information about NTC. Some thought that employer days were not worthwhile because of low attendance, and that personal contact was needed initiated by Guard personnel. Employees of small businesses seem to have more employer problems, although many self-employed individuals were clearly also hurt financially.

Some good people were lost due to NTC participation. A dilemma seems to occur for individuals which involves doing well both in their civilian and military job. Those successful in civilian jobs can least afford time away and can less easily be replaced, yet these same people are successful and essential to the Guard. Many of these type of people eventually have to choose between the Guard and advancement on their civilian job.

There was also the feeling expressed by many that belonging to the Guard handicaps an individual looking for a new job. Individuals perceive discrimination, although it is hidden due to legal entitlements. Employers probably see a less flexible employee who needs special time considerations.

#### **Organizational Issues**

The relationship with the 4th Infantry seemed very good. There was initially a tendency during AT-84 to instill some fear in the Guard concerning NTC, but the training and financial support from the 4th was praised. The North Carolina National Guard was viewed as somewhat slow to respond to financial and equipment needs of this unit during the NTC period, but no major

deficiencies were evident in equipment or financial support at the time of NTC.

#### **Other Issues and Comments**

Three years was seen as too frequent for NTC rotations. Every four years seemed about right. It was pointed out that it takes a year for train-up and a year to recover from strength losses from NTC. This leaves only a year of "normal" training in a three year rotation period. It was felt this was not enough. Some thought that the core group of Guard personnel remain with a unit much longer than corresponding active personnel, and thus NTC experiences would remain for longer periods.

Two issues which continually arose were the lack of promotion opportunity for individuals in the E3-E5 range. Many individuals spent long time in grades of E4 and E5, and saw little chance for promotion soon. This seemed to be a major determinant in their eventual decision to stay or leave the Guard.

NCO's also stated many times their critical role in the NTC process. Besides their additional time for planning, they seem to get caught in a crunch between junior personnel and Officers. Besides planning they are also responsible for training execution and "taking care of" the junior enlisted. They seem to be the most reluctant group when discussing the next NTC trainup, and it is evident they shoulder a disproportionate share of the additional burden.

The issue of "Old vs. New" Guard was also discussed. There clearly existed a lack of understanding among families and employers about the need for NTC training. Many still saw the Guard as a fraternal organization, rather than a military unit. Members feel caught between these images and the realities of the new training schedules.

#### **LOUISIANA**

##### **Unit Characteristics**

The 3-156th Mechanized Infantry Bn was the seventh Guard unit to attend NTC. They attended NTC from August 15-September 3, 1985. The unit is a roundout unit to the 5th Infantry Division located at Fort Polk, Louisiana. The unit HHC is located at Lake Charles, Louisiana and companies are located in Leesville, Oakdale, Jennings, DeRidder and DeQuincy. All units are located within 70 miles of Fort Polk. The major industry in the area is petrochemicals. This includes offshore drilling, refineries and fertilizer manufacture. During the period of NTC, Louisiana had the highest unemployment rate in the nation.

## **Sources of Information**

We interviewed officers, NCO's and junior enlisted personnel of the unit approximately eight months after returning from NTC. This included interviews at HHC in Lake Charles and with drilling reservists at Lake Charles and Fort Polk. We also had the take-home package and after-action report from the units.

## **Trainup for NTC**

The unit began the trainup during AT in the summer of 1984 with an 11 day field exercise at Fort Polk and continued with drills through September of 1985. While the NTC trainup for this unit was much more intense than its normal training schedule, the intensity of the trainup for this unit was eased somewhat by its favorable location. All elements of the units were within 70 miles of Fort Polk, and three companies were less than 40 miles away. Their normal training schedule called for two trips a quarter to Fort Polk. During the NTC trainup from January to June they spent every drill at Fort Polk. These drills were MUTA-5's beginning on Friday afternoon. A typical drill would consist in reporting Friday afternoon, and reaching the field around midnight on Friday. They would return to the field about 4:00 Sunday afternoon and check out of the armory around 11-12 Sunday evening.

For Officers and senior NCO's each trip to Fort Polk was preceded by a weekend of planning, so these individuals spent at least two consecutive weekends a month in NTC trainup. In some months more time was spent on a third weekend or in the evenings. Not all the additional time was paid. The trainup seemed to be harder for the HHC company, both because it was the farthest from Fort Polk, and because of the extra equipment and people.

Full-timers also returned in the weekends after training to perform maintenance. There seemed to be a feeling that supply and maintenance people were the most extended during the trainup.

Almost all key officers and some NCO's made at least one advance trip to NTC, either as part of another rotation or for coordination purposes. The latter trips would last five days. Several officers made two and three trips to NTC.

## **The NTC Experience**

The NTC experience was viewed as "wonderful" training. The training was seen as strengthening the professionalism of the unit, and it has affected the pace and seriousness of training since that time. Several people again contrasted the "Old " and "New" Guard. The "Old" Guard began to disappear with the advent of the roundout unit concept, and NTC training marks the definite transition to the "New" Guard.

The NTC training was seen as benefiting the Officer and senior NCO's more than the junior enlisted personnel. The controller and review sessions were particularly effective during training, but these did not involve the junior personnel.

The civilian workforce at NTC was again heavily criticized and generally "made life miserable." The unit had been adequately forewarned about the checkout and turn-in process. The unit sent an advance party to handle the draw, but underestimated the number of extra people needed at turnin. Thirty extra people were sent from Louisiana to help at turn-in, but they also sent too many people who had attended NTC back before turn-in was completed. The turn-in took seven days to complete. This meant several people--mostly full timers--spent up to seven days after the rotation to accomplish the turn-in.

There was also criticism of the equipment drawn at NTC. It was not comparable in quality to that used at Fort Polk. Major repairs had to be made prior to checking the equipment out. The equipment was also prone to field breakdown. Of 115 tracks used during the exercise, 65 engines needed pulling during the three weeks.

Part of the equipment problems may be attributed to a strike among civilian employees at NTC in the weeks preceding this rotation. Evidently the civilian workforce had just returned to work two days before this rotation and this unit picked up some of the slack from this strike. For many individuals, NTC was a five week process. Individuals were working almost full time during the week preceding NTC on planning, loading equipment, etc. Many also worked in the week after NTC either on equipment turnin or returning equipment from NTC to Louisiana.

A major problems during training was fatigue with key individuals getting only two to three hours of sleep a day. Part of this was an effort to keep up with repair and logistics problem, and maintenance crews often worked nights. There were many serious accidents blamed on fatigue. Many key personnel felt there was no one to take over if they slept. They acknowledged a "lack of depth" in Guard units. Other problems included night movements, unfamiliarity with mountains and desert, map reading and radio communication problems.

One of the main lessons learned at NTC for Guard personnel was their inability to sustain wartime activity for a full 14 days. The Guard is used to either two-day weekend drills or annual training in which five days is usually the longest continuous period in the field. Issues of sustainment included fatigue, equipment maintenance, and delegation of authority. Many key personnel don't train subordinates to take over because they never have been in a position where that was necessary.

One of the major problems resulting from NTC was a major backlog of maintenance, deferred paperwork and personnel problems after NTC. There seemed to be a huge effort made to accomplish the NTC rotation, but partly at the expense of deferred tasks. A mass exodus of Officers during the period after NTC also has hurt the capacity to recover during this period. One got



the impression in visiting the unit approximately seven months after NTC that recovery was still in process.

### **Retention and Strength**

The unit was at 96 percent of strength one year before NTC. Since some of these individuals were not trained the unit was at a deployable strength of about 85 percent. There was no explicit "freeze" policy prior to NTC. Soldiers who were not performing up to par were separated three months prior to NTC. Partly this was allowed because there were a surplus of individuals from others units wishing to go to NTC. Approximately 825 people deployed to NTC.

The unit made liberal use of these fillers for NTC. Approximately 180 individuals who attended NTC were fillers. These individuals came mostly from Louisiana, with some from Texas and Alabama. Seventy five of these fillers were from a sister unit in Abbeyville which was scheduled for an NTC rotation in the year following this unit. The fillers did not train with the unit, and arrived on the first day at NTC. The fillers were a mixed bag. Some performed exceptionally well, others did not have the right skills and "got in the way."

The unit worked hard to solve employer problems, and stated that there was none who could not attend NTC because of employer conflicts. Some individuals returned early and spent only 15 days at NTC instead of the scheduled 21.

The most frequently mentioned personnel problem arising from NTC was a large number of Officers leaving in the period following NTC. Only one officer out of 20 attending NTC remained in the unit seven months after returning from NTC, but the reasons for leaving differed considerably. Some officers left for other Guard or Army Reserve units primarily to "easier" jobs. Some left the Guard. However, at least one transferred to active duty, and others transferred to a sister unit which was scheduled to attend the next Guard rotation at NTC.

There appeared to be lots of attrition early-on during the trainup. This attrition was primarily due to individuals not physically fit, marginal performers and older NCO's. There were also both family and employer problems. The very high unemployment rate (between 15-20 percent) during the NTC period both helped and hurt. For unemployed individuals, extra paid days were welcome and there was a large and willing group to put in the extra time for preparation. For employed individuals, time off and creating hassles for the employer created a large risk and potential loss of job. So many employed individuals were more reluctant to put in extra time because of fear of job loss.

Many individuals thought that being Guard members put them at higher risk for losing their jobs, losing promotions and being offered overtime work. Not all companies provided military leave (although this is officially against the law) and many individuals had to take personal leave or leave without pay to

attend drills and/or NTC. For one company the union contract called only for two weeks of military leave.

Attrition was attributed to several sources. Job and family problems were dominant, with some attrition being due to "old Guard" types who were not in condition, too old or not willing to do the job. Many left who had seven to ten years of service.

There were several anecdotes about individual problems encountered with families and employers during NTC which illustrate the problems.

- It appeared that the breakup of five marriages could in some way be attributed to NTC.
- One self-employed individual felt he lost upwards of \$15000 of business during the NTC trainup. He was an Officer and spent lots of extra time during the period.
- One individual lost his job because of time off due to NTC.
- Several individuals were threatened with job loss during NTC trainup.
- One E-7 was married to a Regular Army Officer who could not understand the extra time required during the NTC trainup.
- One individual lost a lot of overtime opportunities at time and a half and this caused problems within the family.
- One individual was last to be brought back from layoff which he attributed to Guard participation.
- Others thought that they had lost promotion opportunity because of all of the time off due to Guard.
- Many took personal vacation time to attend NTC--causing family problems.
- Most enlisted members thought they lost money as a result of going to NTC. Guard pay did not make up for the loss of civilian pay.
- Many officers who were self-employed stated that their business had suffered as a result of NTC.

#### **Organizational Issues**

There appeared to be an unusually good relationship with the 5th Infantry at Fort Polk after an initial period of adjustment. Minor friction occurred around conflicts between training schedules and other demands on the time of Guardsman. State cooperation appeared to be more problematical with some hassling in providing necessary equipment and supplies for NTC.

## Other Issues and Comments

Individuals stated that attendance at NTC about every three years was appropriate. The major problem in the experience seemed to be the mismatch between the expectation at joining of two drill days a month and two weeks of AT, and the new stronger demands on their time from the Guard. Some considered the new demands unfair.

There was a feeling that the NTC experience changed the way that personnel will be selected and promoted in the future. Many of the individuals that dropped out were marginal performers, older or physically unfit. The tendency in the future will be to not keep marginal performers, to recruit harder for quality people, and to select officers and NCO's on the basis of performance and dedication.

There appeared to be problems caused by the perception of what the Guard does by families and employers. The feeling was that employers and families viewed the Guard primarily in terms of a fraternal organization that occasionally helped in case of floods, etc. Employers did not understand why all of the additional time was necessary, and do not see the Guard as a military organization. There appears to be a real "image" problem with the National Guard.

This appears to be compounded by the fact that not all Guard and Reserve units have similar demands. Several individuals wondered why they shouldn't join an Army Reserve unit where things were easier, but pay was the same. Many individuals did transfer into other units after NTC.

The legislation covering Guard employment rights appears to be ineffective in actually protecting individuals from job loss, discrimination in promotions and overtime opportunity, and rehiring from layoffs. Most thought being part of the Guard hurt employment chances, and that employers could fire you for other reasons even though the Guard participation was the problem.

Some thought that NTC could be compressed for Guard units to alleviate some of the problems. Too much time was spent in checkout and turn-in--almost six of the 21 days.

### III. MEASURING THE EFFECT OF NTC TRAINING ON ATTRITION

The case studies point to a common perception among unit personnel that there were member losses which could reasonably be attributed to conditions arising from the NTC trainup and rotation itself. This anecdotal evidence from the approximately 150 unit members interviewed points to family and employer problems as two of the main causes of additional losses. This seems consistent with previous research findings<sup>1</sup> that family and employer problems are the main cause of retention losses in the Selected Reserve. These family and employer problems would be expected to be exacerbated by the additional time requirements arising from the NTC experience. All units attending NTC scheduled extra drills and demanded much additional time outside regular drills for NCO's and officers.

Besides additional losses arising from family and employer problems, the case studies discovered two additional sources of NTC related losses. One source occurs due to tighter quality and performance standards in preparation for NTC. Most units appear to have either transferred, separated or retired some members because of some combination of lack of physical fitness, marginal performance or lack of dedication to the NTC mission. These losses usually occurred early in the training schedule and decisions seem to be motivated primarily by a desire to perform well at NTC.

The second source is lost income and vacation time during additional drills and annual training time. Many reservists who attend drill or AT in place of civilian work lost money for every hour put in on the Guard job. More hours put in means more lost income. As additional reserve time infringes more and more on normal civilian working hours, the more likely that reservists will lose money.

While case studies can provide explanations for losses and drops in strength, it is necessary to develop statistical models in order to develop more precise estimates of the magnitude of losses which can reasonable be attributed to NTC participation. Such analysis can also identify types of reservist's who had either larger or smaller than average losses. For instance one interesting question is whether NCO's or officers had higher losses than junior enlisted personnel.

While the main focus of policymakers has been the change of strength of units attending NTC, we believe that a better policy measure is the attrition probability of members from units attending NTC compared to comparable units not attending NTC. More specifically we have used a comparative measure of the probability that a unit member present 12 months before NTC was still present six months or more after NTC.

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<sup>1</sup>See Burright, B., Grissmer, D., and Doering, Z., *A Model of Reenlistment Decisions of Army National Guardsman*, The RAND Corporation, October 1982.

Attrition is a more immediate and directly related measure of the effects of the NTC process than is the strength level of the unit. We would expect on the basis of the case studies and previous research that individuals serving in the units would encounter the primary problems associated with NTC. All members who enter the one-year trainup period for NTC encounter the stress from the additional time and intensity. This additional training time would be expected to directly affect retention and separation decisions of unit members during this period.

Unit Strength is a more weakly coupled indicator of the effects of NTC. It depends on both attrition and accession levels. Units could be encountering large losses related to NTC, but also be recruiting more individuals to replace these losses. Under these circumstances, strength might remain steady even though NTC training was causing increased losses. In this situation the unit would likely be replacing experienced unit members with more inexperienced members, and although strength might be steady, the quality and training readiness of individuals in the unit would decrease.

While we expect the direct and primary effects to be in attrition of unit members, we also acknowledge that NTC can in both the long and short run affect recruiting success. In the short run units might reduce recruiting efforts during the busy NTC period, and recruiting might fall. Recruiting efforts might also increase as units try to achieve higher manning levels for NTC. In the longer run, recruiting success might rise or fall depending on whether recruits view units attending NTC more or less favorably. Thus, unit strength may be a more interesting long term measure for units that have regular NTC rotation.

This chapter describes and provides results of a statistical model which infers the magnitude of increased probability of individual attrition which can be attributed to units attending NTC. This inference is based on a statistical comparison of attrition probabilities for members of unit attending NTC and comparison units not attending NTC. These comparisons are done for reservists with different characteristics, so we can also determine what types of reservists in NTC units have higher or lower loss probabilities.

#### CHOOSING CONTROL UNITS

No units serve as perfect comparisons for NTC units because all units have somewhat different kinds of personnel, are located in different areas, have different missions, functions and authorized strength and different training intensities. In choosing control units we thought it important to limit ourselves to units in the same state, to those having the same approximate size and whenever possible the same function (infantry, armor, etc.). This was not possible in every case. In Georgia in particular, since three units had attended NTC, it removed the natural comparison units for each of the NTC units. In some states we found more than one unit who met the criteria and included each of the units.

In order to develop a comparison sample, we obtained a list of all National Guard units within each state, identified by function, type of unit, location, and authorized and actual strength. Wherever possible the control units included units of similar function and authorized strength level as the NTC unit. Units of similar type were chosen as a possible sample and were then examined to see if they were in existence at least one year prior to the date that the matching NTC unit attended NTC. Table 3.1 lists the NTC and the comparison units chosen.

#### **DATA BASE**

This section describes the data base that we used in modelling attrition and transfer behavior. We obtained a list of units by state that attended the National Training Center with the dates of attendance and chose a set of control units as described above.

For each of these units, quarterly personnel records were generated using the Reserve Components Common Personnel Data System (RCCPDS) maintained by the Defense Manpower Data Center (DMDC), from FY1980 till the end of FY1985. In order to maintain comparability across units (since units had differing NTC dates), we selected all personnel records starting from one year prior to the NTC date and up to six months subsequent to the NTC date. This gives us an eighteen month time period except for Alabama, Louisiana, and North Carolina. These units attended NTC during June and August of FY1985 and have a slightly shorter post-NTC period. For the first two Georgia units and the Minnesota units, a separate file was built containing the full history of these unit personnel till the end of FY1985 (giving us two years, one year, and one-and-a-half years subsequent to the NTC date respectively). This file allowed us to make comparisons between shorter--and longer-term patterns of attrition.

#### **COMPARING PATTERNS OF ATTRITION IN NTC AND SELECTED COMPARISON UNITS: ALL STATES COMBINED**

We present below evidence on the patterns of overall attrition and transfers among NTC units and control units on an aggregated level. The next section presents state-specific results. We first develop a multivariate attrition model to assess the importance of variables that could be hypothesized, both from the case studies and previous research, to affect attrition. In particular, we wanted to gauge the effect of the increased and intensive training at the National Training Center (NTC). From the standpoint of the Army National Guard, these models can be used to examine and predict the distribution of losses in units selected for such training.

Table 3.1

## NTC AND COMPARISON UNITS BY STATE

State	NTC Units			Comparison Units	
	UIC	Unit	Date	UIC	Unit
Alabama	WP0L	2-152 AR BN	June 1985	WP0J	1-131 AR BN
Georgia	WPC2	1-108 AR BN	September 1983	WVM2	1-122 INF BN
	WPDA	1-121 INF BN	September 1984	WQV3	1-230 FA BN
	WPDB	2-121 INF BN	March 1985	WPDG	1-214 FA BN
				WQV4	2-214 FA BN
Louisiana	WPQR	3-156 INF BN	August 1985	WPQQ	2-156 INF BN
				WVCA	1-156 AR BN
Minnesota	WPUZ	2-136 INF BN	April 1984	WPUU	1-135 INF BN
				WPUV	2-135 INF BN
				WPUY	1-136 INF BN
North Carolina	WPJN:	2-120 INF BN	June 1985	WQYW	1-119 INF BN
				WPJM	1-120 INF BN
				WPJT	1-252 AR BN
				WPJU	2-252 AR BN

DEMOGRAPHIC PROFILE OF NTC AND  
COMPARISON UNITS

Table 3.2 presents a profile of NTC and comparison units by selected demographic characteristics. The units are remarkably similar: there is little difference in the proportions of blacks, officers, older members, singles as well as in the distribution by mental category. NTC units do have a somewhat higher proportion of nongraduates as well as less experienced members (YOS  $\leq$  6).

Table 3.2

A PROFILE OF NTC AND COMPARISON UNITS  
BY SELECTED CHARACTERISTICS

Characteristic	NTC Units	Comparison Units
Percent black	26.1	29.9
Percent officer	6.7	6.7
Percent age $\geq 40$	14.8	15.8
Percent single	40.0	40.6
Percent nonhigh school graduate	27.2	20.8
Percent Category I, II <sup>a</sup>	26.3	28.0
Percent Category III	68.6	66.6
Percent Category IV	5.1	5.4
Percent $0 \leq \text{YOS}^b < 3$	16.3	14.2
Percent $3 \leq \text{YOS} < 6$	28.5	25.2
Percent $6 \leq \text{YOS} < 11$	24.9	25.0
Percent $11 \leq \text{YOS} < 20$	24.4	29.1
Percent $20 \leq \text{YOS}$	5.8	6.5

<sup>a</sup>Recruits are classified into Category I-IV mental groups based on scores received on the entrance examination (Armed Forces Qualifying Test, or AFQT). Category I receive scores of 80 and above; Category IV receive scores of 30 and below.

<sup>b</sup>YOS = years of service.

PATTERNS OF ATTRITION IN NTC  
AND COMPARISON UNITS

It is important to note that the definition of attrition will differ depending on the viewpoint and context. From the viewpoint of the unit, all losses need to be included--any separation represents a loss both in overall strength and readiness to the individual unit. From the Guard's point of view, transfers to other Guard units do not represent a loss to the component; only losses to other components or to civilian life would be included.

Table 3.3 examines attrition in NTC versus comparison units using these two different definitions. NTC units appear to have an overall unit attrition rate of 28.1 percent over an eighteen month period; comparison units have a markedly lower attrition rate of 21.7 percent over the same time period. The proportion of transfers is also higher in NTC units. The rate of transfers to other Guard units is 7.3 percent for NTC units compared to 5.1 percent for non-NTC units. However, the difference in unit attrition is mainly due to



Table 3.3

ATTRITION/TRANSFERS IN NTC VERSUS COMPARISON  
UNITS OVER THE NTC PERIOD

	Separated from the Guard (%)	Transferred to Another Guard Unit (%)	Overall Unit Attrition (%)	Still Remaining in Original Unit (%)	(N)
NTC units	20.8	7.3	28.1	71.9	(4,950)
Comparison units	16.6	5.1	21.7	78.3	(10,769)

increased Guard separations as opposed to transfers from the NTC units. Attrition due to separation was almost 25 percent higher in NTC units than the rate for the comparison group, while attrition due to both separation and transfers was 29 percent higher for NTC units.

## EMPIRICAL MODEL

Empirically, the attrition process is summarized by a dichotomous dependent variable that categorizes individuals as stayers or leavers. The outcome variable is defined as:

$$Y_{it} = \begin{cases} 0, & \text{if individual } i \text{ stayed through time period } t \text{ and} \\ 1, & \text{if individual } i \text{ separated during time period } t. \end{cases}$$

The conditional logistic regression (logit) model is an appropriate choice for the functional form, since it restricts the value of the dependent variable to zero and one. This model relates the separation decision of the  $i^{\text{th}}$  individual,  $Y_i$ , to a vector of characteristics for that individual,  $X_i$ . The assumed relation is:

$$Y_i = p(X_i) + \varepsilon_i$$

where

$$p(x_i) = P[Y_i = 1|x_i] \\ = \frac{1}{1 + e^{-(\beta_0 + \beta_1 x_{i1} + \beta_2 x_{i2} + \dots + \beta_k x_{ik})}}$$

$k$  denotes the number of characteristics measured for each individual, and  $\beta_0, \beta_1, \dots, \beta_k$  are the parameters of the model to be estimated.

Two estimation methods are commonly used to estimate the parameters in studies of this type: conditional maximum likelihood estimation and discriminant function analysis. Since several empirical studies report similar estimates with both methods,<sup>2</sup> we chose the cheaper, discriminant function method.<sup>2</sup>

## EMPIRICAL RESULTS

In estimating the models, we used two definitions of attrition:

- (a) Losses from the unit over an eighteen month period encompassing one year prior to NTC date and six months subsequent to it.
- (b) Losses from the Guard over the same eighteen month period. Transfers are thus excluded in this definition.

The independent variables are dichotomous, equal to one if the individual has the defining characteristic, zero otherwise. Since discriminant function regression coefficients have no easy interpretation, the results are transformed and presented as attrition probabilities. These probabilities, calculated from the regression coefficients are:

$$P(x_i) = \frac{1}{1 + e^{-(\alpha + \sum_j b_j x_{ij})}}$$

where  $P(x_i)$  = probability of attrition of a specific reservist  $i$   
 $x_{ij}$  = values of the explanatory variable  $j$  for reservist  $i$   
 $b_j$  = estimated coefficients for the  $x_j$ ,

<sup>2</sup>See Haggstrom (1983); Chow and Polich (1980); Halperin et al. (1971).

<sup>3</sup>The linear discriminant specification of a logistic attrition model is  $\ln P(Y_i)/(1 - P(Y_i = x\beta))$ ; i. e., the natural logarithm of the odds ratio is a linear function of  $x$ . The estimated coefficients are derived by rescaling the ordinary least squares (OLS) coefficients relating  $Y$  and  $x$ . In other words, one simply computes a linear probability function by regression  $Y_i$  on  $x_i$ , using OLS. Then one can obtain the discriminant function estimates  $\alpha$  and  $\beta$  as:  $\beta = (n/SSE) * \hat{\beta}$  and  $\alpha = \log(P_1/P_2) + (n/SSE)(\hat{\alpha} - 0.5) + n(n_1^{-1} - n_2^{-1})/2$  where  $\hat{\alpha}, \hat{\beta}$  = the OLS intercept and estimated coefficient;  $n$  = number of observations;  $SSE$  = residual sum of squares from the OLS regression;  $n_1$  = number of observations for which the dependent variable has the value 1;  $n_2 = n - n_1$ ;  $P_1$  = proportion of individuals in the target population for which  $Y$  has the value 1. (If observations are drawn at random from the target population, one can estimate  $P_1$  using  $n_1/n$ , and  $P_2 = 1 - P_1$ ).

These probabilities represent a convenient and useful summary of the regression model effects.

Table 3.4 presents estimation results of the basic attrition model. The table entries are estimated attrition probabilities for an individual with the designated characteristics. In this and subsequent tables, a reference individual is defined and the attrition probability calculated for that individual. Attrition probabilities are then calculated for an individual who differs from that reference individual in one characteristic, holding all others constant at the reference category values.

The first column of Table 3.4 shows unit attrition probabilities; the second column presents attrition probabilities from the Guard. Looking at unit attrition first, we find that the attrition probability is .20 over this NTC period for the reference individual, who is an enlisted reservist, nonblack, age less than 40 years, married, high school graduate, Category III with six to eleven years of service and serving in a non-NTC unit. If this individual were black, instead of nonblack, the attrition probability would be significantly lower: 0.15. Statistically significant and large differences occur in attrition rates among lower quality individuals (high school nongraduates, Category IV) and those with fewer than three years of service. These groups all have much higher attrition rates (between 0.26 - 0.36) as compared to 0.20 for our reference individuals. Blacks and those with greater experience ( $YOS \geq 11$ ) all have significantly lower attrition rates.

From the viewpoint of the study, it is the effect of being in an NTC unit that we are primarily interested in measuring. Holding everything else constant, the attrition probability for our reference individual rises from 0.20 to 0.25 for those serving in NTC units, an increase of almost 25 percent. The difference is statistically significant at a .01 level of significance.

Turning now to attrition from the Guard, we find, as expected, that attrition probabilities for all groups are somewhat smaller. Basically the same patterns show up: the greatest differences in attrition rates are evidenced by lower quality, and lower experience individuals who have considerably higher attrition rates, when compared to the reference group. The probability of attrition would be 17 percent for our reference individual in an NTC unit and 14 percent in a non-NTC unit. This difference is significant at a .01 level of significance. This represents an increase in attrition of 21 percent.

Table 3.4

PROBABILITY OF ATTRITION FROM THE UNIT AND THE ARMY  
NATIONAL GUARD OVER AN EIGHTEEN MONTH TIME  
PERIOD, ALL STATES COMBINED

Independent Variables	Dependent Variable:	
	Attrition from the Unit Over Eighteen Month Period	Attrition from the Guard Over Eighteen Month Period
Reference group <sup>a</sup>	0.20	0.14
Black	0.15**	0.10**
Officer	0.26**	0.14
Age $\geq 40$	0.18	0.13
Single	0.22**	0.15*
High school nongraduate	0.26**	0.20**
Category I, II	0.24**	0.17**
Category IV	0.36**	0.35**
0 $\leq$ YOS < 3	0.31**	0.26**
3 $\leq$ YOS < 6	0.19	0.14
11 $\leq$ YOS < 20	0.12**	0.08**
20 $\leq$ YOS	0.15**	0.09**
NTC Unit	0.25**	0.17**

<sup>a</sup>The reference group consists of nonblack, enlisted, age less than 40 years, married, high school graduates, Category III with six to eleven years of service, serving in non-NTC units.

\*Significant at .05 level.

\*\*Significant at .01 level.

#### BASIC MODEL, WITH INTERACTION TERMS

In an attempt to see whether the effect of being in an NTC unit was distributed evenly across all reservist groups or fell disproportionately on some, we reestimated the basic attrition model with interaction terms that allowed for differential effects among the various groups within NTC units. This allows us to compare attrition probabilities for each reservist subgroup. The results are given in Table 3.5. For example, for an individual with reference characteristics, except being a Category IV, the estimated unit attrition for non-NTC unit is .27 and for NTC unit is .64. For Guard attrition, the corresponding numbers are .29 and .56. For Guard attrition, all groups tested except officers have higher attrition for NTC units, but only Category IV is statistically significant. Category IV individuals has

Table 3.5

PROBABILITY OF ATTRITION FROM THE UNIT AND THE  
ARMY NATIONAL GUARD, OVER THE NTC PERIOD,  
ALL STATES COMBINED

Independent Variables	Dependent Variable:	
	Attrition from the Unit Over Eighteen Month Period	Attrition from the Guard Over Eighteen Month Period
Reference group <sup>a</sup>	0.19	0.13
Black	0.15**	0.11**
Officer	0.28**	0.14
Age $\geq 40$	0.18	0.13
Single	0.21*	0.14*
High school nongraduate	0.27**	0.20**
Category I, II	0.23**	0.16**
Category IV	0.31**	0.27**
0 $\leq$ YOS < 3	0.33**	0.26**
3 $\leq$ YOS < 6	0.20	0.14
11 $\leq$ YOS < 20	0.12**	0.07**
20 $\leq$ YOS	0.15**	0.09**
NTC unit	0.28**	0.21**
Interaction Terms		
If in an NTC unit and having the following characteristic:		
Black	0.21	0.14
Officer	0.25**	0.17
Age $\geq 40$	0.25	0.18
Single	0.31	0.22
High school nongraduate	0.32**	0.25**
Category I, II	0.32	0.24
Category IV	0.48	0.49**
0 $\leq$ YOS < 3	0.44	0.40
3 $\leq$ YOS < 6	0.27	0.22
11 $\leq$ YOS < 20	0.16	0.11
20 $\leq$ YOS	0.25	0.16

<sup>a</sup>The reference group consists of nonblack, enlisted, age less than 40 years, married, high school graduates, Category III with six to eleven years of service, serving in non-NTC units.

\*Significant at .05 level.

\*\*Significant at .01 level.

unusually larger attrition levels for NTC units. For unit attrition all groups had higher NTC attrition with Category IV again showing the largest difference between NTC and non-NTC units. Other groups having very large attrition differences include those over 40, single reservists, high school nongraduates, and Category I, II individuals.

The effects of all other variables are the same as in the basic regression. A tentative conclusion one can draw from these aggregated data is that being in an NTC unit clearly increases the probability of attrition; that the pattern across different reservist groups are fairly similar with Category IV individuals appearing to be affected by NTC disproportionately when compared to other groups.

#### IV. STATE-SPECIFIC ATTRITION ESTIMATION RESULTS

We turn now to state-specific attrition estimation results. This allows us both to examine differences between NTC and comparison units within states as well as across states. First, we present a comparative profile of NTC and comparison units within each state by selected characteristics. The next section analyzes patterns of attrition and transfers. The final section describes the regression results.

##### COMPARATIVE PROFILE OF NTC AND COMPARISON UNITS

Table 4.1 makes clear that there are broad similarities in the types of personnel across units in different state, but also some notable differences. Overall, the units tend to be largely nonblack, younger than 40 years, married, high school graduate, Category III, with between 6 to 20 years of service. However, even this profile varies in one or the other respect. Georgia and Louisiana have much higher proportions of blacks. Minnesota has a much higher percentage of Category I and Category II reservists and high school graduates. The distribution by years shows that the Georgia units tend to have fewer personnel with 0-3 years of service.

Turning now to a comparison of NTC and comparison units within states, we find that the groups are fairly alike in a number of respects with some striking disparities. Comparison units in Alabama have a somewhat higher proportion of blacks and older reservists; Georgia NTC units have a somewhat higher proportion of lower-quality recruits as well as those with lower overall experience (YOS < 6); Louisiana comparison units have a higher proportion of singles; North Carolina comparison units have both a higher proportion of blacks and those with greater experience. Indeed, given the constraints of finding comparison units that (a) were in the same state, (b) were in existence a year before the NTC date, and (c) had similar functions, missions and authorized strength, it is surprising the two groups are not more dissimilar.

##### PATTERNS OF ATTRITION/TRANSFERS AMONG NTC AND COMPARISON UNITS BY STATE

The overall pattern of attrition from the Guard and transfers to other Guard units is presented in Table 4.2. Despite differences in the profile of units across states, the pattern that emerges from the data is strikingly clear: NTC units have significantly higher unit and Guard attrition than comparison units over the same period, without an exception. The first two units (Georgia 1-108 and Minnesota) to attend NTC have the highest Guard and unit attrition levels over the 18 month period. That attrition level is 28 to 31 percent for Guard attrition and 32 to 34 percent for unit attrition. The largest percentage increases in Guard and unit attrition occur in North Carolina and Georgia 1-108. The unit with the lowest level of percentage

Table 4.1

A COMPARISON PROFILE OF NTC AND COMPARISON  
UNITS BY STATE AND SELECTED CHARACTERISTICS

Characteristic	Alabama		Georgia (11-100)		Georgia (11-121)		Georgia (2-121)		Louisiana		Minnesota		North Carolina	
	NTC Units	Com- parison Units	NTC Units	Com- parison Units	NTC Units	Com- parison Units	NTC Units	Com- parison Units	NTC Units	Com- parison Units	NTC Units	Com- parison Units	NTC Units	Com- parison Units
Percent black	13.5	20.2	14.4	42.3	51.0	36.9	45.4	36.9	40.8	44.8	0.1	0.2	12.6	33.2
Percent officer	8.1	7.5	9.3	7.7	6.3	6.8	5.3	6.6	6.5	8.0	6.5	6.4	6.2	5.7
Percent age > 40	13.9	19.3	22.3	18.7	12.7	17.8	17.3	17.6	10.9	6.8	12.8	14.0	15.4	16.7
Percent single	32.8	34.4	28.9	36.5	42.1	34.6	38.5	35.4	46.7	61.1	50.2	47.4	36.0	36.8
Percent nonhigh school graduates	28.9	26.4	35.8	25.8	30.4	24.6	31.4	24.0	22.6	21.6	16.9	13.2	27.0	18.2
Percent Category I, II	25.1	19.3	23.2	23.0	19.2	24.8	21.3	24.6	21.0	21.0	42.3	46.1	29.2	25.7
Percent Category III	69.3	71.3	71.7	71.8	74.8	71.0	74.3	71.2	72.7	69.5	54.8	51.6	65.4	67.3
Percent Category IV	5.6	9.4	5.1	5.2	6.0	4.2	4.4	4.2	6.3	9.5	2.9	2.3	5.4	7.0
Percent 0 < YOS <sup>a</sup> < 3	17.1	14.8	7.1	6.4	13.6	8.4	14.8	9.6	24.0	27.5	18.8	18.7	17.7	16.1
Percent 3 < YOS < 6	26.6	24.0	29.6	26.3	30.4	23.3	22.2	22.7	28.2	36.0	28.8	27.0	33.2	21.1
Percent 6 < YOS < 11	25.5	23.3	21.2	27.8	26.4	28.6	28.3	28.9	27.7	20.8	23.5	22.3	21.1	23.3
Percent 11 < YOS < 20	24.0	25.2	32.7	32.1	24.4	33.2	29.4	32.4	17.2	13.7	24.1	26.1	20.6	32.2
Percent 20 < YOS	6.8	12.7	9.3	7.4	5.3	6.5	5.3	6.4	2.9	2.0	4.8	5.9	7.4	7.3
(N)	533	491	533	1,552	837	1,531	771	1,561	649	1,075	821	2,036	792	2,523

<sup>a</sup>  
YOS - years of service.



increase is the Georgia 2-121. In Alabama and North Carolina, a substantial number appear to choose to transfer to other Guard units; the proportion of transfers is almost double that of comparison units.

We turn now to the state-disaggregated regression results in order both to get a statistical estimate of the magnitude of the NTC effect as well as to compare these across states.

#### ESTIMATION RESULTS

Tables 4.3-4.4 present what was earlier labeled the basic attrition model, for two dependent variables defined earlier as:

- (a) Attrition from the unit over the NTC period, encompassing one year prior to NTC data and six months subsequent to it<sup>1</sup>
- (b) Attrition from the Guard over the same period.

Looking at Table 4.3, there appears to be some consistency and diversity in the regression results across states:

- Other things equal, blacks in every state tested have a lower propensity to attrit from the unit, as do those with 11-20 years of service. The latter effect is due to the vesting structure or the retirement system which holds individuals in until 20 years of service.
- Singles have a significantly and surprisingly higher attrition rate, as do lower quality reservists. In particular, Category IV and high school nongraduate enlistees have much higher attrition rates than their counterparts.
- Other things equal, Category I, II have higher attrition probabilities than Category III. This results may be due to the increased civilian job responsibilities and wages of higher aptitude individuals, and the associated greater potential for job conflicts.
- Officers and younger reservists (less than six years) show mixed patterns. There are statistically significant results in opposite directions. The major reason for this appears to be a markedly different pattern in Louisiana and Minnesota from other units. In Louisiana, the case studies showed an officer exodus after NTC. This shows up in the analysis. This same high officer loss rate appears in Minnesota. Other units appear to have lower officer attrition. Louisiana also seems to have different patterns of attrition for

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<sup>1</sup>Recall that for Alabama, Louisiana, North Carolina, the time period actually encompasses only fifteen months: one year prior to NTC date and three months subsequent to it.

Table 4.2

ATTRITION/TRANSFERS IN NTC VERSUS COMPARISON  
UNITS OVER THE NTC PERIOD BY STATE

	Separated from the Guard Unit (%)	Transferred to Another Guard Unit (%)	Overall Unit Attrition (%)	Still Remaining in Original Unit (%)	(N)
Alabama					
NTC units	14.8	16.0	30.8	69.2	(533)
Comparison units	14.1	8.4	22.5	77.6	(491)
Georgia (1-108)					
NTC units	30.7	1.1	32.0	68.0	(547)
Comparison units	21.5	1.1	22.6	77.4	(1,552)
Georgia (1-121)					
NTC units	24.1	4.9	29.0	71.0	(801)
Comparison units	17.4	4.7	22.1	77.9	(1,531)
Georgia (2-121)					
NTC units	17.4	7.4	24.8	75.2	(771)
Comparison units	15.7	7.8	23.5	76.6	(1,561)
Louisiana					
NTC units	15.6	8.9	24.5	75.5	(649)
Comparison units	13.5	6.6	20.1	79.9	(1,075)
Minnesota					
NTC units	28.4	4.7	33.1	66.9	(821)
Comparison units	23.3	4.5	27.8	72.2	(2,036)
North Carolina					
NTC units	15.2	9.4	24.6	75.4	(792)
Comparison units	10.2	5.4	15.6	84.4	(2,523)

Table 4.3

PROBABILITY OF ATTRITION FROM THE UNIT  
DURING THE NTC PERIOD BY STATE

Independent Variables	Dependent Variable: Attrition from the unit over the NTC period						
	Alabama	Georgia 1-108	Georgia 1-121	Georgia 2-121	Louisiana	Minnesota	North Carolina
Reference group <sup>a</sup>	0.20	0.21	0.20	0.22	0.24	0.19	0.12
Black	0.17	0.18	0.13**	0.18*	0.19**	-- <sup>b</sup>	0.09**
Officer	0.25	0.08**	0.17	0.33*	0.49**	0.38**	0.21**
Age 40	0.16**	0.23	0.19	0.20	0.18	0.16	0.12
Single	0.30	0.19	0.25**	0.25	0.24	0.20	0.15*
High school nongraduate	0.23	0.24	0.24	0.26	0.28	0.41**	0.15*
Category I, II	0.23	0.18	0.22	0.30**	0.29	0.28**	0.14
Category IV	0.36**	0.25	0.32**	0.37**	0.61**	0.46**	0.36**
YOS 0 - 3	0.27	0.91**	0.45**	0.29	0.15**	0.37**	0.19**
YOS 3 - 6	0.14	0.26**	0.26**	0.25	0.15**	0.15**	0.15
YOS 11 - 20	0.12**	0.09**	0.13**	0.15**	0.14**	0.12**	0.07**
YOS 20	0.20	0.09**	0.14	0.19	0.23	0.21	0.10
NTC unit	0.28**	0.31**	0.23*	0.23	0.30*	0.24**	0.18**

<sup>a</sup>The reference group consists of nonblack, enlisted, age less than 40 years, married, high school graduates, Category III with six to eleven years of service, serving in non-NTC units.

<sup>b</sup>Too small a sample size to be included separately.

\*Significant at .05 level.

\*\*Significant at .01 level.

Table 4.4

PROBABILITY OF ATTRITION FROM ARMY NATIONAL  
GUARD OVER THE NTC PERIOD BY STATE

Independent Variables	Dependent Variable: Attrition from the Guard over the NTC period						
	Alabama	Georgia 1-108	Georgia 1-121	Georgia 2-121	Louisiana	Minnesota	North Carolina
Reference group <sup>a</sup>	0.06	0.20	0.15	0.14	0.17	0.15	0.06
Black	0.04	0.17	0.10**	0.11**	0.14	-- <sup>b</sup>	0.05
Officer	0.10	0.08**	0.14	0.12	0.29*	0.16	0.09
Age 40	0.06	0.23	0.15	0.14	0.09*	0.13	0.05
Single	0.12**	0.17	0.18	0.15	0.17	0.15	0.07
High school nongraduate	0.08	0.21	0.19*	0.19*	0.20	0.38**	0.09**
Category I, II	0.10*	0.17	0.16	0.20**	0.21	0.22**	0.08*
Category IV	0.33**	0.26	0.30**	0.35**	0.68**	0.49**	0.40**
YOS 0 - 3	0.16**	0.93**	0.38**	0.26**	0.08**	0.36**	0.11**
YOS 3 - 6	0.07	0.26*	0.21**	0.18	0.08**	0.11**	0.09*
YOS 11 - 20	0.03*	0.09**	0.11**	0.09**	0.09**	0.08**	0.03**
YOS 20	0.03	0.08**	0.09	0.08**	0.23**	0.15	0.06
NTC unit	0.06	0.30**	0.19*	0.16	0.20	0.19**	0.08*

<sup>a</sup>The reference group consists of nonblack, enlisted, age less than 40 years, married, high school graduates, Category III with six to eleven years of service, serving in non-NTC units.

<sup>b</sup>Too small a sample size to be included separately.

\*Significant at .05 level.

\*\*Significant at .01 level.

younger personnel whose attrition is much lower than for our reference individual. This may be due to the unusually high unemployment rates in Louisiana during this period.

- In all cases membership in the NTC units--other things equal--raises the probability of unit attrition for the reference individual. Attrition probabilities are statistically significant in six of seven cases and increase unit attrition for a typical individual for NTC units in the range of 5 to 50 percent.

Turning now to attrition from the Guard (Table 4.4), we find that the basic patterns hold: blacks and higher experience recruits have lower attrition probabilities while lower quality and younger reservists have significantly higher attrition rates than the reference group. Once again, NTC units have equal or higher separation rates in all units than comparison units, holding all other factors constant. These results are statistically significant for four of the seven units. Attrition rates for a typical reservist increase by 50 percent.

#### ESTIMATION RESULTS: THE BASIC MODEL, WITH INTERACTION TERMS

As in an earlier section, we introduced a number of interaction terms between being in an NTC unit and other demographic characteristics to see if any particular groups within NTC units could be identified as disproportionately prone to attrition. Tables 4.5-4.6 present these results for the two dependent variables: attrition from the unit, attrition from the Guard.

The tables make clear that it is difficult to identify any one group as being peculiarly prone to attrition: lower-quality (Category IV, nonhigh school graduates) do emerge as having significantly higher attrition, although the statistical significance occurs only in a few cases. Being in an NTC unit clearly makes a difference but the sample sizes for subgroups become too small to see a pattern.

Table 4.5

PROBABILITY OF ATTRITION FROM THE UNIT OVER THE NTC  
PERIOD FOR SELECTED GROUPS BY STATE

Independent Variables	Dependent Variable: Attrition from the unit over the NTC period						
	Alabama	Georgia 1-108	Georgia 1-121	Georgia 2-121	Louisiana	Minnesota	North Carolina
Reference group <sup>a</sup>	0.14	0.19	0.19	0.21	0.24	0.18	0.10
Black	0.12	0.16	0.15	0.16*	0.18*	-- <sup>b</sup>	0.08*
Officer	0.21	0.09**	0.14	0.30*	0.55**	0.41**	0.22**
Age 40	0.13	0.21	0.17	0.19	0.18	0.16	0.12
Single	0.20	0.20	0.22	0.24	0.22	0.20	0.13
High school nongraduate	0.21*	0.23	0.25*	0.26*	0.27	0.41**	0.12
Category I, II	0.14	0.18	0.24	0.26	0.27	0.26**	0.13
Category IV	0.24	0.26	0.25	0.28	0.65**	0.45**	0.23**
YOS 0 - 3	0.31	0.82**	0.47**	0.37**	0.17	0.33*	0.20**
YOS 3 - 6	0.18	0.24	0.23	0.25	0.15**	0.14*	0.16**
YOS 11 - 20	0.11	0.09**	0.12**	0.15*	0.13*	0.12**	0.06**
YOS 20	0.16	0.07**	0.11	0.13	0.25	0.24	0.09
NTC unit	0.35	0.37**	0.25	0.28	0.31	0.26*	0.25*
Interaction Terms							
If in an NTC unit and having the following characteristic:							
Black	0.31	0.36	0.13*	0.22	0.25	--	0.15
Officer	0.37	0.12	0.25	0.36	0.42	0.37	0.22*
Age 40	0.22	0.38	0.26	0.23	0.22	0.19	0.13*
Single	0.48	0.23*	0.35	0.30	0.35	0.23	0.29
High school nongraduate	0.34*	0.37*	0.26	0.28	0.35	0.48	0.34
Category I, II	0.44	0.28	0.23	0.41	0.37	0.40	0.27
Category IV	0.65*	0.38	0.49	0.57	0.59	0.55	0.91**
YOS 0 - 3	0.28	0.95	0.50	0.23**	0.14	0.50	0.20**
YOS 3 - 6	0.18	0.47	0.35	0.25	0.18	0.20	0.17**
YOS 11 - 20	0.19	0.20	0.17	0.15	0.20	0.15	0.19
YOS 20	0.42	0.21	0.27	0.37	0.28	0.18	0.22

<sup>a</sup> The reference group consists of nonblack, enlisted, age less than 40 years, married, high school graduates, Category III with six to eleven years of service, serving in non-NTC units.

<sup>b</sup> Too small a sample size to be included separately.

\* Significant at .05 level.

\*\* Significant at .01 level.

Table 4.6

PROBABILITY OF ATTRITION FROM ARMY NATIONAL  
GUARD OVER THE NTC PERIOD FOR SELECTED  
GROUPS BY STATE

Independent Variables	Dependent Variable: Attrition from the Guard over the NTC period						
	Alabama	Georgia 1-108	Georgia 1-121	Georgia 2-121	Louisiana	Minnesota	North Carolina
Reference group <sup>a</sup>	0.03	0.18	0.14	0.13	0.19	0.15	0.04
Black	0.02	0.15	0.11	0.10	0.14	-- <sup>b</sup>	0.04
Officer	0.06	0.08**	0.10	0.10	0.33*	0.17	0.09*
Age 40	0.03	0.21	0.14	0.13	0.14	0.13	0.05
Single	0.05	0.19	0.15	0.13	0.18	0.15	0.06
High school nongraduate	0.09**	0.20	0.21**	0.20**	0.19	0.38**	0.06*
Category I, II	0.04	0.16	0.17	0.18	0.20	0.20**	0.06*
Category IV	0.14**	0.27	0.22	0.27*	0.70**	0.48**	0.19**
YOS 0 - 3	0.29**	0.93**	0.38**	0.28**	0.09**	0.34**	0.11**
YOS 3 - 6	0.09*	0.23	0.19	0.17	0.08**	0.10*	0.08**
YOS 11 - 20	0.03	0.08**	0.10*	0.08**	0.08**	0.08**	0.02**
YOS 20	0.05	0.07**	0.07*	0.05**	0.21	0.20	0.05
NTC unit	0.08	0.36**	0.21	0.19	0.18	0.20	0.11**
Interaction Terms							
If in an NTC unit and having the following characteristic:							
Black	0.07	0.33	0.11*	0.12	0.16	--	0.05
Officer	0.13	0.12	0.26	0.18	0.26	0.19	0.08
Age 40	0.09	0.39	0.21	0.16	0.07	0.18	0.05
Single	0.17	0.20**	0.27	0.19	0.19	0.18	0.11
High school nongraduate	0.06**	0.35	0.29	0.19	0.23	0.45	0.19
Category I, II	0.17	0.26	0.17	0.27	0.26	0.34	0.15
Category IV	0.68*	0.40	0.49	0.54	0.60	0.56	0.98**
YOS 0 - 3	0.12**	0.95	0.45	0.26	0.07	0.47	0.11*
YOS 3 - 6	0.06*	0.46	0.31	0.22	0.08	0.16	0.10*
YOS 11 - 20	0.03	0.20	0.15	0.10	0.12	0.09	0.05
YOS 20	0.03	0.20	0.21	0.19	0.29	0.07**	0.11

<sup>a</sup> The reference group consists of nonblack, enlisted, age less than 40 years, married, high school graduates, Category III with six to eleven years of service, serving in non-NTC units.

<sup>b</sup> Too small a sample size to be included separately.

\*Significant at .05 level.

\*\*Significant at .01 level.

## **V. SHORT-TERM VERSUS LONGER-TERM PATTERNS OF ATTRITION**

The earlier sections, for reasons of comparability, have laid emphasis on an eighteen month time period: one year prior to the NTC date and almost six months subsequent to it. However, in the case of three units, Georgia (1-108), Georgia (1-121), and Minnesota, our records span a longer history. Of particular interest is the question of whether the NTC "effect" identified earlier actually continues beyond the period immediately before and after NTC.

This section looks at this short-term versus longer-term effect for these three units, both by examining the trend in the pattern of attrition/transfers as well as by analyzing the differences in attrition probabilities over time.

### **SHORT-TERM VERSUS LONGER-TERM PATTERNS OF ATTRITION**

Table 5.1 presents the pattern of attrition and transfers over this longer time-period for the three units. We must point out that the rates cannot be compared across units. The Georgia (1-108) unit went to NTC in September of 1983; as a result, we have a history spanning a little over two years (till September 1985). The second Georgia unit went to NTC in October 1984, giving us one full year of post-NTC data. The Minnesota unit attended NTC in April of 1984, thus giving us eighteen months past the NTC date. The rates reflect the uneven time period.

Total attrition (including transfers) is highest in the unit with the longest history; a little over 50 percent of the original members remain in the first Georgia NTC unit compared to almost 60 percent in the comparison units. The second Georgia unit reflects this same difference, although the magnitude is a little smaller; as is the case with the Minnesota unit. Table 5.2 compares long and short run attrition differences between NTC and control units. The results show that for the first Georgia unit there is a widening gap in attrition in the long run. This unit appears to still have higher attrition patterns two years after NTC. The data for the other units (which have much shorter post-NTC periods) show no widening attrition gap after NTC. However, this needs to be followed over longer time periods for a valid test.

### **ESTIMATION RESULTS: SHORT-TERM VERSUS LONGER-TERM ATTRITION**

Table 5.3 presents the estimated regression results from the basic attrition model using (a) attrition from the unit over an eighteen month period and (b) attrition from the unit over the full-time period for which we have data (one year prior to NTC to the end of FY1985: September 1985).



Table 5.1

ATTRITION/TRANSFERS FROM TWELVE MONTHS PRIOR  
TO NTC DATE TO SEPTEMBER 1985 FOR SELECTED  
STATES

State and Type of Unit	Separated from the Guard Unit (%)	Transferred to Another Guard Unit (%)	Overall Unit Attrition (%)	Still Remaining in Original Unit (%)	(N)
Georgia					
NTC unit (1-108)	41.5	7.3	48.8	51.2	(547)
Comparison units	27.8	12.9	40.7	59.3	(1,551)
Georgia					
NTC unit (1-121)	23.1	9.0	32.1	67.9	(837)
Comparison units	17.6	7.8	25.4	74.6	(1,531)
Minnesota					
NTC units (2-136)	31.3	9.1	40.4	59.6	(821)
Comparison units	26.5	7.5	34.0	66.0	(2,036)

As expected, the most marked differences occur in the Georgia first unit (1-108). The attrition probability for the reference group almost doubles from 0.20 to 0.38. The basic pattern remains the same with some differences: officers, for example, experience a marked increase in attrition over the longer run, going from having significantly lower attrition in the short-run to higher than the reference group in the longer-run. Category IV and those with fewer years of experience tend to have considerably higher propensities to attrit.

Similar patterns are evident for the second Georgia unit as well as for Minnesota. Officers appear markedly at risk over the longer-run. Lower quality individuals (Category IV, high school nongraduates) appear uniformly to have much higher attrition rates, as do those with fewer years of experience.

Table 5.2

COMPARISON OF LONG AND SHORT RUN  
ATTRITION PATTERNS

	Short Run		Longer Run	
	Unit	Guard	Unit	Guard
Georgia (108)	32.0	30.7	48.8	41.5
Georgia comparison	22.6	21.5	40.7	27.8
Difference	9.4	6.1	8.1	13.7
Minnesota	33.1	28.4	40.4	31.3
Minnesota comparison	27.8	23.3	34.0	26.5
Difference	5.3	5.1	6.4	4.8
Georgia (1-121)	29.0	24.1	32.1	23.1
Georgia comparison	22.1	17.4	25.4	17.6
Difference	6.9	6.7	6.7	5.5

As far as the NTC effect is concerned, the difference in attrition rates between NTC and comparison units widens a lot for the Georgia (1-108) and some for Georgia (1-121), but remains relatively stable for Minnesota. This suggests some longer-run and continuing effects for the first two units, but that attrition stabilized for Minnesota.

Table 5.4 presents estimation results for attrition from the Guard using the same two time periods discussed above. Here, a widening gap only appears for the Georgia 1-108.

Table 5.3

A COMPARISON OF SHORT-RUN VERSUS LONGER-RUN UNIT ATTRITION PROBABILITIES FOR SELECTED STATES

Independent Variable	Georgia (1-108)		Georgia (1-121)		Minnesota	
	A <sup>a</sup>	B <sup>b</sup>	A	B	A	B
Reference group <sup>c</sup>	0.21	0.38	0.20	0.23	0.19	0.27
Black	0.18	0.34	0.13**	0.15**	-- <sup>d</sup>	--
Officer	0.08**	0.42	0.17	0.33**	0.38**	0.52**
Age ≥ 40	0.23	0.40	0.19	0.21	0.16	0.22
Single	0.19	0.40	0.25**	0.29**	0.20	0.31*
High school non-graduate	0.24	0.43*	0.24*	0.26	0.41**	0.46**
Category I, II	0.18	0.41	0.22	0.25	0.28**	0.34**
Category IV	0.25	0.52**	0.32*	0.32*	0.46**	0.48**
YOS 0 - 3	0.91**	0.85**	0.45**	0.44**	0.37**	0.41**
YOS 3 - 6	0.26*	0.45*	0.25*	0.29*	0.15**	0.19**
YOS 11 - 20	0.09**	0.22**	0.13**	0.18**	0.12**	0.16**
YOS ≥ 20	0.09**	0.30	0.14	0.19	0.21	0.29
NTC unit	0.31**	0.45**	0.23**	0.28**	0.24**	0.32**

<sup>a</sup>Dependent variable in this model includes attrition from the unit over an eighteen month period (one year prior to NTC date to six months later).

<sup>b</sup>Dependent variable in this model includes attrition from the unit till the end of FY1985 (one year prior to NTC date to September 1985).

<sup>c</sup>The reference group consists of nonblack, enlisted, age less than 40 years, married, high school graduates, Category III with six to eleven years of service, serving in non-NTC units.

<sup>d</sup>Too small a sample size to include separately.

\*Significant at .05 level.

\*\*Significant at .01 level.

Table 5.4

A COMPARISON OF SHORT-RUN VERSUS LONGER-RUN GUARD ATTRITION PROBABILITIES FOR SELECTED STATES

Independent Variable	Georgia (1-108)		Georgia (1-121)		Minnesota	
	A <sup>a</sup>	B <sup>b</sup>	A	B	A	B
Reference group <sup>c</sup>	0.20	0.26	0.15	0.15	0.15	0.19
Black	0.17	0.21**	0.10**	0.10**	-- <sup>d</sup>	--
Officer	0.08**	0.11**	0.14	0.14	0.16	0.21
Age ≥ 40	0.23	0.27	0.15	0.15	0.13	0.17
Single	0.17	0.25	0.18	0.18	0.15	0.20
High school non-graduate	0.21	0.31	0.19*	0.19*	0.38**	0.42**
Category I, II	0.17	0.24	0.16	0.16	0.22**	0.27**
Category IV	0.26	0.49**	0.30**	0.30**	0.49**	0.49**
YOS 0 - 3	0.93**	0.93**	0.38**	0.38**	0.36**	0.40**
YOS 3 - 6	0.26*	0.34**	0.21**	0.21**	0.11**	0.14**
YOS 11 - 20	0.09**	0.13**	0.11**	0.11**	0.08**	0.10**
YOS ≥ 20	0.08**	0.13	0.09	0.09	0.15	0.18
NTC unit	0.30**	0.41**	0.19*	0.19 *	0.19**	0.23*

<sup>a</sup>Dependent variable in this model includes attrition from the Guard over an eighteen month period (one year prior to NTC date to six months later).

<sup>b</sup>Dependent variable in this model includes attrition from the Guard till the end of FY1985 (one year prior to NTC date to September 1985).

<sup>c</sup>The reference group consists of nonblack, enlisted, age less than 40 years, married, high school graduates, Category III with six to eleven years of service, serving in non-NTC units.

<sup>d</sup>Too small a sample size to include separately.

\*Significant at .05 level.

\*\*Significant at .01 level.

## VI. FUTURE RESEARCH PLAN

Two approaches have been used to determine the magnitude and causes of losses during periods of intense training for Guard units. The case study approach used retrospective interviews of Guardsman still present in units to collect information concerning the NTC experience, recollections of reasons for attrition for those leaving and reasons for their own decisions for staying. The second approach used statistical analysis of loss data from both NTC units and selected control units to determine differences in loss rates between NTC and control units.

The case study approach has yielded a rich knowledge of the workings of Guard units during times of more intense training. It has allowed us to identify several hypothesis concerning higher loss rates during intense training and also to frame policy recommendations for ways to alleviate such losses. However, the retrospective approach has some serious shortcomings which can be remedied with an approach which follows units before, during and after the NTC experience. One such shortcomings was the inability to either interview losses at the time of separation or after separation. The latter cannot be done without submission of lengthy research plans and interview formats, and their approval by the Office of Management and Budget.

The retrospective case study approach was appropriate to the first phase of the project where summarizing the experience of the first seven units to attend was paramount. It was also not clear that a problem existed that demanded further research. However, the present results from the statistical analysis has yielded fairly unambiguous results that show significantly higher attrition rates for NTC units. However, several important questions remain which could be answered with a more comprehensive research approach.

The most important question concerns the causes of the higher NTC unit attrition rates. Four hypothesis have been generated from the case studies and previous research to explain higher attrition rates. These are:

- pruning of marginal performers in preparation for NTC
- family conflicts
- employer conflicts
- lost income, vacation days and threats to employment security.

While we know the overall magnitude of higher attrition rates, we cannot know how much each cause contributed to higher rates. This is a fairly important question from the standpoint of reserve policy and readiness. If pruning of marginal performers is a primary reason, it simply means that increased training time caused only small retention losses due to family, employer conflicts, and that more stringent screening, promotion and retention policies need be implemented to reduce marginal performers. This conclusion

would cast increased training time in a more favorable light since the major losses are marginal rather than good performers. If on the other hand, employer, family and income related reasons are dominant, then significant losses of individuals performing well are incurred, and policies aimed at reducing such losses need to be evaluated.

Other questions which remain to be answered through future research include:

- Do higher loss rates continue in the longer term for NTC units?
- Are the magnitude of increased losses being reduced for later deploying units.
- Are NTC units able to attract more and better recruits after NTC?
- Do similar loss patterns occur during the second NTC rotation for units.

The first question could not be tested well with the current data which recorded losses through the end of FY85. Updating the data for each unit through FY86 would enable tracking of several units up to three years after return from NTC. This data would allow us to determine whether losses continue at higher rates long after the NTC rotation.

A reasonable hypothesis is that higher attrition losses will occur only for the first few units, and later units will experience declining levels of losses. In the case studies, we noted that a strong learning curve seemed evident from unit to unit. Later deploying units learned from the lessons of earlier deploying units. This was evident in logistical planning, deployment strategy, use of fillers, and personnel policies. Learning also occurred for NTC personnel. Early and later deploying units encountered different personnel at NTC, different attitudes toward training and different evaluation strategies. Early training and evaluation approaches were judged to be more harsh, less helpful and less coordinated.

At least three additional Guard units have deployed to NTC in the last year bringing the total to 10. Adding the experience of these units to the first seven covered here could help to determine whether the problem is solving itself. Both case studies and statistical analysis of these units would be useful to answering this question.

This study focused only on loss patterns from NTC units. Attending NTC may also affect recruiting patterns for units. These recruiting patterns also need study by comparing accession levels for NTC and control units. In the longer run picture of unit strength, recruiting is as important as losses. It is important to know whether NTC units can sustain or enhance their recruiting effort both during the NTC period and during the period between NTC rotations.

## ALTERNATE PLANS FOR FUTURE RESEARCH

There are several questions which could be addressed by some additional short term research using the basic retrospective techniques employed in this report. These questions could be pursued at approximately similar levels of effort expended in this study. This research should be directed at clarifying and extending the current results. A much larger research effort could be directed at contemporaneous collection and analysis of data as units are going through the NTC experience. While this research would provide much improved data, it would also cost more to collect both in terms of researcher time and National Guard time. A short description of the options are given below.

### Short Range Research

There are several short term efforts which could address some of the above questions. These include:

- Comparison of loss patterns before versus after NTC in order to help distinguish loss of good from poor performers.
- A third person analysis of individual attritees from recent NTC units.
- Analysis of loss patterns for NTC and control units over the longer time frame---until the end of FY86.
- Inclusion of the three additional units attending NTC in FY86 in the statistical analysis.
- Case studies of the experience of the three additional units.

One method to distinguish whether the higher loss rates could be attributed to pruning of marginal performers would be to study the timing of losses over the NTC period. Pruning of marginal performers would probably occur relatively early in the NTC trainup. This observation arises from the case studies where all units exhibited a desire to quickly "stabilize" a set of people that could be counted on early in the period. Marginal performers and ghosts would probably be dropped early so that fillers could be identified and recruiting from other units could take place. On the other hand, family and employer problems would more probably arise throughout and after the NTC period.

An analysis of comparative loss patterns for NTC and control units in six month intervals beginning one year prior to NTC and lasting until one year after NTC would determine when higher loss patterns occur. While this approach would not unambiguously determine the causes of losses, it would provide partial support for one explanation.

Additional retrospective information could be obtained through a third party evaluation of individual attritees. For recent units attending NTC and their control units, simple evaluations by supervisors of the causes of attrition for each separating individual could be collected. These evaluations would include performance and reasons for leaving. Comparisons of the results of these evaluations would provide additional evidence concerning the cause of attrition.

Another shorter term effort could probably settle the question whether higher attrition remains over a longer term. The analysis in this report followed individuals from all seven NTC and control units for six months after NTC. For three units a longer time period was available--up to two years. However the results of the second analysis were not conclusive. Adding another year of attrition data to the data base will allow following more units in the longer term, and allow analysis up to three years from NTC.

The analysis of the seven units exhibited a very weak pattern of smaller attrition losses for later deploying units. Adding three more units to the analysis could reveal a more coherent pattern. Both case studies and the statistical analysis would add a significant amount of data to the basic study.

Finally, accession patterns of NTC and control units need to be included in the basic study. In the long run, accession patterns are equally important as loss patterns in determining unit strength levels. Accession levels need to be studied with time series methods and quarterly data is available to do this.

#### **Long Term Research Plan**

The best method to use to understand the causes of higher attrition is to collect data from unit personnel and unit attritees starting before the NTC trainup and continuing at least six months after NTC. Following at least three NTC units and associated control units over an eighteen month period would yield sufficient data to determine the causes of higher attrition.

The basic approach would include surveys of unit members prior to the NTC trainup and at the conclusion of the study 18 months later. During the 18 month period, all members leaving the unit would receive a special survey to collect data on the separation decision. Supervisory personnel would also be asked to provide performance data. In addition data would be collected from the units concerning training time, use of fillers, employer and family efforts and other matters pertaining to NTC.

The purpose of such surveys would be to collect several types of information. This includes:

- Basic military information--grade, MOS, years of active and reserve experience, promotion history, unit experience.



- Information on civilian employment, wages, hours worked, and job description
- Information on family.
- Information on employer pay and military leave policies for annual training.
- Instances and frequency of employer problems.
- Attitude of employer and spouse toward Guard participation.
- Likely reasons for leaving the Guard.
- Attitudes toward and evaluation of training.
- NTC experience.

Draft survey instruments suitable for the initial data collection are included in Appendix A.

A separate instrument would be needed for individuals leaving the Guard and for their supervisors. These instruments would collect the following type of information:

- Reasons for leaving.
- Type of attrition--voluntary or involuntary.
- Performance as Guardsman.
- Spouse and employer attitudes.

Draft survey instruments are given for the attritee and the supervisor in Appendix B.

This research approach is costly both in terms of execution and in terms of the burden placed on Guard units already burdened by additional training time. It also would take at least 2 to 2 1/2 years to produce research results. It should not be undertaken without a clear sense that a problem exists. We would recommend that the short term research agenda first be implemented before preceding with the longer term agenda. The short term agenda might be able to answer several of the questions remaining, and would better define the magnitude of the problem.

## VII. CONCLUSIONS

### ATTRITION EFFECTS OF NTC

The major purpose of this study was to determine whether personnel involved in NTC training had higher attrition, and if so, what causes this higher level of attrition and for which groups attrition is higher. The study includes the first seven National Guard units to attend NTC. To test these hypotheses we have followed each individual who was present 12 months preceding the NTC rotation and determined whether they were still present in the unit and in the Guard six months following the rotation and until the end of FY85. For each of the seven units attending NTC, we chose a set of comparable units and followed individuals in these units in the same manner. We have used simple and more sophisticated statistical comparisons of attrition from NTC and non-NTC units to determine the effects of NTC training on attrition.

We have used several definitions of attrition in making the comparisons. The first definition measures individual attrition as those leaving the Guard, while the second measures attrition as those leaving the unit. The latter definition includes both people who transfer out of the unit as well as people leaving the Guard. For each of these attrition definitions we have used two time periods. The first measures the level of attrition from one year prior to the NTC rotation until six months after NTC. The second definition measures attrition from 12 months prior to the NTC rotation until the end of FY85. For the shorter time period we have data from seven units attending NTC. For the longer time period only the three earliest deploying units have a long enough period of time to look at longer run effects.

The results show that both attrition from the unit and from the Guard is higher among reservists participating in NTC training than among reservists in comparable units not attending NTC. For the shorter 18 month period (12 months prior to NTC to 6 months after) attrition from NTC units was 28.1 percent compared to 21.7 for comparable non-NTC units. For attrition out of the Guard the corresponding rates are 20.8 percent for NTC units and 16.6 percent for non-NTC units. This represents a 29 percent increase in unit attrition and a 25 percent increase in Guard attrition potentially attributable to NTC training. The statistical analysis controls for differences among personnel in NTC and non-NTC units and thus provides more reliable estimates. These results show only slightly smaller effects. For a typical reservist, the attrition probability out of the unit for an NTC unit increased by 25 percent compared to a non-NTC unit. The results show a 21 percent increase for attrition from the Guard.

Each of the seven NTC units analyzed separately shows higher attrition from the unit and six of the seven show higher attrition from the Guard than the comparable non-NTC units. The increases in attrition due to NTC vary quite a bit by unit. For attrition from the Guard the percentage increases in attrition vary from 0 to 49 percent, while for attrition from the unit, the

percentage increases vary from 5 to 58 percent. There is no distinct pattern of a decreasing NTC attrition effect for later versus earlier NTC attendance, although there is a clear pattern for the three Georgia units that later attending units had smaller attrition effects than earlier attending units.

To study longer term attrition, we tracked individuals until the end of FY85 for three units. For the first unit we have a period of two years after NTC rotation, while we have 1 1/2 and 1 year following NTC rotation for the second and third units. The main question is whether higher attrition effects are confined to the immediate NTC period or higher attrition continues for longer time periods. As of the end of FY85 the attrition rate out of the Guard for the first unit was 41.5 percent compared to 27.8 percent for the comparison unit. This attrition gap of 13.7 percentage points between this unit and its comparison has widened considerably. As of six months after NTC, the respective attrition rates were 32.0 and 22.6--a gap of only 7.4 percentage points. The other two units show little evidence for widening gaps in attrition, and attrition effects for these units appear to be confined to the NTC period.

The same comparisons for attrition from the unit show little evidence for a widening gap for the first and third unit, and weak evidence for a widening gap for the second unit. The evidence we have is limited both in number of units and in time after NTC, and further study is needed which includes more units and tracks individuals to the end of FY86.

We expected to find that the additional attrition caused by NTC fell more heavily on certain groups. For instance one might hypothesize that married reservists might have higher NTC related attrition than singles because of greater potential for family conflict. Another hypothesis would be that NCO's and Officers might have higher attrition since they were required to put in not only the extra time connected with drills, but also much more time in planning sessions and recon trips to NTC. The subgroups tested include five year of service groups (0-3, 3-6, 7-10, 11-20, 20+), two education groups (high school and non-high school), three mental category groups (I-II, III, IV), two racial groups (black and nonblack), two marital groups (single and married), two age groups (under 40, 40 or over) and both officer and enlisted.

Our results show that the additional attrition effects were broadly spread among all types of reservists. Our statistical analysis shows that--other things equal--attrition in NTC units was higher for virtually every subgroup tested. The only group which seems to have unusually high attrition effect are lower quality personnel (category IV and/or non high school graduates). This would support the hypothesis that at least a portion of the attrition may be due to loss of marginal performers.

#### CAUSES OF NTC ATTRITION

There are four hypothesis for higher levels of unit attrition which arise both from previous research and from the case studies. These are:

- The additional training time required for NTC causes family conflict leading to separation or transfer.
- The additional training time required for NTC causes employer problems leading to transfer or separation.
- The additional training time causes increased loss of income, vacation time or increased threat of job dismissal.
- Tighter physical conditioning, performance or attendance standards are imposed in preparation for NTC leading to transfer or separation of marginal performers.

It is important to distinguish among these reasons for higher attrition levels since they have quite different implications. In the first three cases, reservists may be lost who are performing well, but quit or transfer due to conflicts or losses connected with training. In the latter case primarily marginal performers are lost and the effects on personnel readiness may be positive. In this study we were not able to distinguish what part of the additional attrition might be attributed to each cause. A more comprehensive study using surveys of individual reservists would be required to address this question. However, in the case studies which included interviews with about 150 reservists in the NTC units, we found some evidence to support that each of the hypothesis was operational and causing part of the attrition.

Employer and family conflicts get exacerbated by the additional training time required during the NTC trainup and rotation. These conflicts cannot be easily or neatly characterized, but are as diverse as are the family and employer situations of reservists. Employer problems seem to arise more frequently for individuals working for small employers, or as part of small production teams in larger organizations. These individuals are harder to replace and their absence can cause conflict and resentment from co-workers. Employer problems are often encountered in larger employers who support the Guard from a corporate perspective, but whose first line supervisors still find employee absence a problem.

Family problems arise from ordinary concerns of not spending enough time with spouse and children, as well as more complex concerns of single parents finding child care and of restricted child visitation rights for divorced parents. Family conflicts can also arise from lost income during annual training, use of family vacation time and leave without pay to meet Guard obligations. Most younger Guardsman interviewed experienced loss of income during annual training and/or NTC rotation due to the fact that military pay did not make up for lost civilian income. Many used personal vacation time and leave without pay to attend extra drills and NTC.

The legal protection for Guardsman that entitles them to military leave and protection from discrimination and dismissal for Guard related duty clearly is not a panacea for these problems. Some Guardsman we talked with felt they were at a disadvantage in getting jobs, keeping jobs and in

promotion because of Guard duty. Many felt that employers view Guard participation as a negative factor in evaluation. They also realize that employers are smart enough not to explicitly connect Guard duty and job performance and evaluation. In the end the threat of legal sanctions is a distant and cumbersome process, and most Guardsman have to rely on the good will of employers. This is certainly present for a majority of Guardsman, but remains somewhat problematical for an uncomfortable percentage of Guardsman. If training schedules increase, this good will will be increasingly tested.

Independent of family conflicts, lost income and vacation time can increase tendencies toward attrition. Both Officer and enlisted personnel related concern about lost income during interviews. The problem seems more pronounced for junior enlisted personnel for whom loss of income can have more severe consequences.

Income loss occurred in several ways during NTC trainup for reservists. The most common way was during the three week rotation when military pay did not make up for lost civilian pay. Younger reservists are less protected by more liberal employer policies which pay full or partial civilian pay during annual training periods. Most younger reservists receive no civilian pay during this period, and the NTC rotation not only caused a loss of income, but military pay was later in coming. This caused a troublesome gap in paychecks.

Lost income also resulted when many reservists had to take leave without pay to attend the extra drills and annual training period required during NTC. Some reservists give up lucrative overtime opportunities during this period, and some lost income because bonus payments connected with production quotas was lost because of Friday drills.

For officers, problems seemed to be focused more on those self-employed. Officers are more likely to have liberal employer pay policies, and losses in income and gaps in paychecks may not be as serious. However, several self-employed officers who put in substantial amounts of time in planning saw a deterioration in earnings during this period. For these individuals there is also no effective military leave since they work for themselves.

#### ADDITIONAL ISSUES

There was a broad and almost unanimous consensus among Guardsman that NTC training was essential to improving training readiness in combat units, and that--despite personnel losses--unit readiness was significantly higher as a result of NTC training. The effects of NTC training appear to go far beyond the immediate lessons learned at NTC. These effects include:

- Enhanced unit training at home because of better knowledge of what to address, more seriousness and intensity in training, and a desire to perform better on the next NTC rotation.
- Improved selection of personnel at recruitment, reenlistment and promotion due to tighter quality and performance standards.

- Development of an improved relationship and an increased involvement with their active component affiliated units.

However, there are some important issues to address concerning future policies relating to Guard NTC training. These include the following:

- The frequency of the NTC rotations.
- The length of NTC rotations.
- The mismatch between the expectation of Guardsman that 48 drills and 14 days of annual training is the requirement and the more extended training schedules of NTC training.
- Establishing the proper level of resources and compensation for units required to regularly put in additional time and achieve higher readiness levels.
- The difference between the experience of Guardsman in these units (the New Guard) and the perception of employers, families and the general public (the Old Guard).

We can raise--but not solve--these issues here by relating the opinions and attitudes of individuals interviewed.

Opinions expressed on the frequency of NTC rotation usually fell in the 3 to 5 year cycle. There was a general feeling that the trainup occupied a full year, and there was a recovery period extending between 6 to 12 months. This recovery period involved additional maintenance, and a backlog of other work which got put off during the NTC preparation. It also involves replacing personnel lost during the NTC period. Going to NTC more often than three years would leave little time between recovery and the following trainup. Going to NTC more often than every three years would probably have more severe attrition effects than those cited here. In this regard it will be important to continue monitoring units returning to NTC to determine these longer run attrition effects.

It was often expressed in the interviews that the length of the NTC rotation could be shortened slightly for Guard NTC units by streamlining the equipment draw and turn-in process. This process drew the most frequent and vociferous complaints registered about the entire NTC training program and rotation. Equipment turn-in often extended the time required for some individuals by several days. It is hard to evaluate how integral this process is to the NTC training and readiness of units. There is little doubt that later units are handling these problems better by better maintenance in the field, additional people deployed at equipment turn-in and learning the logistics and spare parts procedures better. There also does not seem to be a recognition that the marginal time of reservists in terms of additional days lost on civilian jobs is higher than for active units and perhaps civilian employees at NTC. This issue should probably be reviewed by a joint team of Guard and active personnel to either rationalize the current length of time and process for equipment draw and turnin or to make changes.

Individuals joining and reenlisting in the Guard have current expectations of 48 drills and 14 days of AT. This clearly has changed for units going to NTC. This divergence between expectations and practice can cause several longer term problems if it is not explicitly recognized in some fashion. Recognition of the time required at the time of enlistment and reenlistment will allow individuals to make better decisions about whether to join and what units to join. These better decisions will alleviate to some extent the family and employer conflicts because individuals will choose NTC units who have less anticipated conflicts. This divergence in expectation and practice also can cause additional employer and family problems. Both families and employers can adjust more easily in the long run with a clear expectation of absences. Finally, the divergence can cause morale problems for reservists which lead to transfers to "easier" units or separation from the Guard.

There are several compensation related issues which arise in connection with more intense training requirements for the reserve. Increased training time for many means actual loss of income. This will be true for that portion of the reserves who receive no civilian income for annual training and whose civilian wage is greater than their reserve wage. This is true for at least 25 and up to 50 percent of Guardsman. Thus, more time put into the reserves means more income lost. This can also occur if reservists have to take leave without pay to accommodate the extra reserve time or who turn down overtime opportunities because of reserve service. There are also individuals who put in much unpaid time during the NTC trainup. The fact that reservists meet their reserve commitments speaks to their dedication. However, in the long run these compensation patterns will cause higher attrition and transfers to other units. Certainly we ought to design reserve compensation so that reservists do not lose more money the more time they put in.

Another frequently mentioned problem was the disparity between the "Old Guard" and the "New Guard." This disparity existed for Guardsman who had been members during both periods, but more importantly exists between current Guardsman involved in NTC training and civilians--family members, employers, friends--who still see the Guard as a fraternal rather than military organization. This disparity was particularly acute for Guardsman wanting additional time off for work when supervisors perceptions were the Old Guard. Guard advertising should be directed toward updating the image of the Guard as a military organization with an important role in defense. Updating this image would help solve some of the employer and family problems associated with Guard duty.

Finally, we recommend that a short range research program be undertaken aimed at three goals. These are:

- Estimate attrition rates by cause of leaving to distinguish between those leaving for poor performance and those leaving for family or employer causes.

- Determine whether later NTC units are experiencing lower attrition than earlier units.
- Determine whether attrition stays at high levels in the long run for NTC units.

These goals could be met by including additional units in the analysis, updating current data through 1986 and visiting recent NTC units to obtain information at the individual level for those attriting. If this short range program is not successful at answering the critical questions, then a much larger research program which follows control units and NTC units through the NTC process might be undertaken.



APPENDIX A

DRAFT SURVEYS FOR OFFICERS, ENLISTED PERSONNEL, AND THEIR SPOUSES

## SURVEY OF ENLISTED PERSONNEL

### I. MILITARY BACKGROUND

1. What is your present grade? Mark one

Enlisted Grades

<input type="radio"/> E-1	<input type="radio"/> E-6
<input type="radio"/> E-2	<input type="radio"/> E-7
<input type="radio"/> E-3	<input type="radio"/> E-8
<input type="radio"/> E-4	<input type="radio"/> E-9
<input type="radio"/> E-5	

2. In what year did you first enter any branch of the military?  
If you first entered in the Active Force, record the year you first entered the Active Force.

YEAR

19		
		0
		1
		2
		3
4	4	
5	5	
6	6	
7	7	
8	8	
9	9	

3. When you first entered the military, in which component did you serve? Mark one

- ☐ Active Army (USA)
- ☐ Army National Guard (ARNG)
- ☐ Army Reserve (USAR)
- ☐ Active Navy (USN)
- ☐ Naval Reserve (USNR)
- ☐ Active Air Force (USAF)
- ☐ Air National Guard (ANG)
- ☐ Air Force Reserve (USAFR)
- ☐ Active Marine Corps (USMC)
- ☐ Marine Corps Reserve (USMCR)
- ☐ Active Coast Guard (USCG)
- ☐ Coast Guard Reserve (USCGR)

4. In which components have you served? Mark all that apply

- ☐ Active Army (USA)
- ☐ Army National Guard (ARNG)
- ☐ Army Reserve (USAR)
- ☐ Active Navy (USN)
- ☐ Naval Reserve (USNR)
- ☐ Active Air Force (USAF)
- ☐ Air National Guard (ANG)
- ☐ Air Force Reserve (USAFR)
- ☐ Active Marine Corps (USMC)
- ☐ Marine Corps Reserve (USMCR)
- ☐ Active Coast Guard (USCG)
- ☐ Coast Guard Reserve (USCGR)

5. In all, to the nearest year, how long have you served in the Guard/Reserve? DO NOT include active duty years.

☐ Less than 1 year

YEAR	
19	<div></div>
No. of	<div>0</div>
Years Served	<div>1</div>
	<div>2</div>
	<div>3</div>
	<div>4</div>
	<div>5</div>
	<div>6</div>
	<div>7</div>
	<div>8</div>
	<div>9</div>

6. In all, to the nearest year, how long did you serve in the Active Force/on active duty? Do not include your initial active duty training for the Guard/Reserve. Include service as FTS-AGR/TAR.

- ☐ I have never served in the Active Force
- ☐ Less than 1 year

YEAR	
19	<div></div>
No. of	<div>0</div>
Years Served	<div>1</div>
	<div>2</div>
	<div>3</div>

4	4
	5
	6
	7
	8
	9

7. When you finally left the Active Force/active duty, what was your pay grade? Mark one

Enlisted Grades		Officer Grades		
<input type="radio"/> E-1	<input type="radio"/> E-6	<input type="radio"/> W-1	<input type="radio"/> O-1	<input type="radio"/> O-5
<input type="radio"/> E-2	<input type="radio"/> E-7	<input type="radio"/> W-2	<input type="radio"/> O-2	<input type="radio"/> O-6
<input type="radio"/> E-3	<input type="radio"/> E-8	<input type="radio"/> W-3	<input type="radio"/> O-3	<input type="radio"/> O-7 or
<input type="radio"/> E-4	<input type="radio"/> E-9	<input type="radio"/> W-4	<input type="radio"/> O-4	above
<input type="radio"/> E-5				

## II. MILITARY PLANS

8. At the time of your enlistment or most recent reenlistment, did you receive a bonus? Mark one

☐ No  
☐ Yes, Enlistment  
☐ Yes, Reenlistment

9. How likely are you to REENLIST OR EXTEND at the end of your current term of service? Assume that all special pays which you currently receive are still available. Mark one

☐ (0 in 10) No chance  
☐ (1 in 10) Very slight possibility  
☐ (2 in 10) Slight possibility  
☐ (3 in 10) Some possibility  
☐ (4 in 10) Fair possibility  
☐ (5 in 10) Fairly good possibility  
☐ (6 in 10) Good possibility  
☐ (7 in 10) Probable  
☐ (8 in 10) Very probable  
☐ (9 in 10) Almost sure  
☐ (10 in 10) Certain

10. If required drills were increased an additional tow (2) four-hour drills per month, how likely would you be to reenlist or extend in the Guard/Reserve beyond any current service obligation?

☐ (0 in 10) No chance  
☐ (1 in 10) Very slight possibility  
☐ (2 in 10) Slight possibility  
☐ (3 in 10) Some possibility

- ☐ (4 in 10) Fair possibility
- ☐ (5 in 10) Fairly good possibility
- ☐ (6 in 10) Good possibility
- ☐ (7 in 10) Probable
- ☐ (8 in 10) Very probable
- ☐ (9 in 10) Almost sure
- ☐ (10 in 10) Certain

11. If annual training/ACDUTRA was increased by an additional 5 days, how likely would you be to reenlist or extend in the Guard/Reserve beyond any current service obligation?

- ☐ (0 in 10) No chance
- ☐ (1 in 10) Very slight possibility
- ☐ (2 in 10) Slight possibility
- ☐ (3 in 10) Some possibility
- ☐ (4 in 10) Fair possibility
- ☐ (5 in 10) Fairly good possibility
- ☐ (6 in 10) Good possibility
- ☐ (7 in 10) Probable
- ☐ (8 in 10) Very probable
- ☐ (9 in 10) Almost sure
- ☐ (10 in 10) Certain

12. Do you plan to stay in the Guard/Reserve long enough to qualify for retired pay?

- ☐ I have already qualified
- ☐ Yes
- ☐ No
- ☐ Don't know/am not sure

13. People participate in the Guard/Reserve for many reasons. How much have each of the following contributed to your most recent decision to stay in the Guard/Reserve? Mark one for each item

	Major Contribu- tion	Moderate Contribu- tion	Minor Contribu- tion	No Contribu- tion
Serving the country	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using educational benefits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Obtaining training in a skill that would help get a civilian job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Serving with the people in the unit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Getting credit toward Guard/Reserve retirement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Promotion opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opportunity to use military	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

equipment	0	0	0	0
Challenge of military training	0	0	0	0
Needed the money for basic family expenses	0	0	0	0
Wanted extra money to use now	0	0	0	0
Saving income for the future	0	0	0	0
Travel/"get away" opportunities	0	0	0	0
Just enjoyed the Guard/Reserve	0	0	0	0
Pride in my accomplishments in the Guard/Reserve	0	0	0	0

### III. MILITARY TRAINING, BENEFITS AND PROGRAMS

14. How similar is your civilian job to your Guard/Reserve duty?

- ☐ Does not apply, I don't have a civilian job
- ☐ Does not apply, I am a Guard/Reserve technician
- ☐ Very similar
- ☐ Similary
- ☐ Somewhat similar
- ☐ Not similar at all

15. In calendar year 1985, in which of the following did you participate in/perform? Mark all that apply

- ☐ Federal mobilization
- ☐ State mobilization
- ☐ Local call-up
- ☐ Annual Training/ACDUTRA
- ☐ Active duty
- ☐ Initial or extended active duty for training
- ☐ Guard/Reserve work at home or on my civilian job

16. In 1985, how many days of Annual Training/ACDUTRA did you attend?  
Do not include school unless used to satisfy your Annual Training/ACDUTRA requirement

NO. OF DAYS

0	0
1	1
2	2
3	3
4	4
5	5

6	6
7	7
8	8
9	9

17. Did you attend 1985 Annual Training ACDUTRA a few days at a time, a week or more at a time, or all at once?

- ☐ Did not attend 1985 Annual Training/ACDUTRA
- ☐ A few days at a time, several times over the year
- ☐ A week or more at a time
- ☐ All at once

18. In calendar year 1985, how many paid "Mandays," in addition to any regular drill days and Annual Training/ACDUTRA, did you serve?

☐ None

#### PAID MANDAYS

0	0	0
1	1	1
2	2	2
3	3	3
	4	4
	5	5
	6	6
	7	7
	8	8
	9	9

19. In an average month in 1985, how many unpaid hours did you spend at your drill location (place of regular duty)?

☐ None

#### NO. UNPAID HOURS PER MONTH

0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5

6	6	6
7	7	7
8	8	8
9	9	9

20. For all of 1985, what was your total Guard/Reserve income BEFORE taxes and deductions? Include any pay from drills, Annual Training/ACDUTRA, Bonuses, and any call-ups or other active duty or active duty for training. Do not include earnings as a Guard/Reserve technician. Please give your best estimate.

TOTAL GUARD/  
RESERVE INCOME

- o Record the amount in the boxes. \$ 

0	0	0	0	0	0	0
1	1	1	1	1	1	
2	2	2	2	2	2	
3	3	3	3	3	3	
4	4	4	4	4		
5	5	5	5	5	5	
6	6	6	6	6	6	
7	7	7	7	7	7	
8	8	8	8	8	8	
9	9	9	9	9	9	
- o Round to the nearest whole dollar.
- o Fill in the unused boxes with zeros. (For example, if your answer is \$1,504.75, enter 01504.
- o Then, mark the matching circle below each box.

21. How much of a problem is each of the following for your unit in meeting your unit's training objectives? Please mark the number which shows your opinion on the lines below. For example, people who feel that an item is Not a Problem would mark 7. People who feel that an item is A Serious Problem would mark 1. Others may have opinions somewhere between 1 and 7. Mark one for each item.

	A Serious Problem						Not a Problem	Don't Know
A. Out-of-date equipment/weapons	1	2	3	4	5	6	7	0
B. Poor mechanical condition of equipment/weapons	1	2	3	4	5	6	7	0
C. Being below strength in <u>Grades E-1 - E-4</u>	1	2	3	4	5	6	7	0
D. Being below strength in <u>Grades E-5 - E-9</u>	1	2	3	4	5	6	7	0
E. Not enough staff resources to plan effective training	1	2	3	4	5	6	7	0
F. Low attendance of unit personnel at <u>Unit Drills</u>	1	2	3	4	5	6	7	0



G.	Low attendance of unit personnel at <u>Annual Training/ACDUTRA</u>	1	2	3	4	5	6	7	0		
H.	Ineffective training during <u>Annual Training/ACDUTRA</u>	1	2	3	4	5	6	7	0		
I.	Shortage of MOS/Rating/Specialty qualified personnel			1	2	3	4	5	6	7	0
J.	Low quality of personnel in low grade unit drill positions			1	2	3	4	5	6	7	0
K.	Not enough drill time to practice skills			1	2	3	4	5	6	7	0
L.	Not enough time to plan training objectives <u>and</u> get all administrative paperwork done			1	2	3	4	5	6	7	0
M.	Lack of access to good training facilities and grounds			1	2	3	4	5	6	7	0
N.	Lack of good instruction manuals and materials			1	2	3	4	5	6	7	0
O.	Lack of supplies, such as ammunition, gasoline, etc.			1	2	3	4	5	6	7	0

22. How satisfied are you with the training received during your unit drills?

Very Dissatisfied  
1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7  
Very Satisfied

23. How satisfied are you with the opportunities you have to use your MOS/Rating/Specialty skills during unit drills?

Very Dissatisfied  
1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7  
Very Satisfied

24. How satisfied are you with the opportunities you have for promotion in your unit?

Very Dissatisfied  
1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7  
Very Satisfied

25. How satisfied are you with your opportunities for leadership in your unit.

Very Dissatisfied  
1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7  
Very Satisfied

26. In general, how would you describe the weapons or equipment your unit uses during your unit drills?

Out of Date  
1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7  
Up to Date

27. In genera, how would you describe the mechanical condition of the

weapons and equipment your unit uses during training?

Poor  
1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7  
Excellent

28. Overall, how satisfied were you with your unit's activities at 1985 Annual Training/ACDUTRA?

o Does not apply. I didn't attend 1985 Annual Training/ACDUTRA?

Very Dissatisfied  
1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7  
Very Satisfied

29. In general, how would you describe the morale of military personnel in your unit?

Morale is  
Very Low  
1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7  
Morale is  
Very High

30. In general, how satisfied are you with the supervision and direction you receive during unit drills.?

Very Dissatisfied  
1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7  
Very Satisfied

31. How long have you been in your present unit?

0 Less than 1 year

NO. YEARS  
IN PRESENT UNIT

0	0
1	1
2	2
3	3
4	4
	5
	6
	7
	8
	9

32. Are you a military technician, i.e., a civilian employee of the Army or Air Force National Guard of Reserves?

0 No. GO TO QUESTION 33, Section IV below

☐ Yes

#### IV. Individual and Family Characteristics

33. Are you male or female?

☐ Male

☐ Female

34. How old were you on your last birthday?

AGE LAST  
BIRTHDAY

	0
1	1
2	2
3	3
4	4
5	5
6	6
	7
	8
	9

35. Are you:

☐ American Indian/Alaskan Native

☐ Black/Negro/Afro-American

☐ Oriental/Asian/Chinese/Japanese/Korean/Filipino/Pacific Islander

☐ White/Caucasian

☐ Other

36. AS OF TODAY, what is the highest grade or year of regular school or college that you have completed and gotten credit for? Mark one

ELEMENTARY GRADES		HIGH SCHOOL GRADES	COLLEGE YEARS OF CREDIT	
<input type="radio"/> 1st	<input type="radio"/> 5th	<input type="radio"/> 9th	<input type="radio"/> 1	<input type="radio"/> 5
<input type="radio"/> 2nd	<input type="radio"/> 6th	<input type="radio"/> 10th	<input type="radio"/> 2	<input type="radio"/> 6
<input type="radio"/> 3rd	<input type="radio"/> 7th	<input type="radio"/> 11th	<input type="radio"/> 3	<input type="radio"/> 7
<input type="radio"/> 4th	<input type="radio"/> 8th	<input type="radio"/> 12th	<input type="radio"/> 4	<input type="radio"/> 8
		(Include GED)		or more

37. AS OF TODAY, what is the highest degree or diplomat that you hold?  
Do not include degrees from Technical, Trade or Vocational

schools. Mark one.

DEGREE NOW

- ☐ No Degree or Diploma
- ☐ GED Certificate
- ☐ Certificate of Completion/Attendance
- ☐ Home Study Diploma
- ☐ High School Diploma
- ☐ Associate/Junior College Degree
- ☐ Bachelor's Degree (BA/BS)
- ☐ Master's Degree (MA/MS)
- ☐ Doctoral Degree (PhD/MD/LLB)
- ☐ Other degree not listed above

38. Are you currently:

- ☐ Married for the first time
- ☐ Remarried
- ☐ Widowed, GO TO QUESTION 44
- ☐ Divorced, GO TO QUESTION 44
- ☐ Separated, GO TO QUESTION 44
- ☐ Single, never married, GO TO QUESTION 44

39. How long have you been married to your current spouse?

- ☐ Less than 1 year

NO. YEARS MARRIED

0	0
1	1
2	2
3	3
4	4
	5
	6
	7
	8
	9

40. How well do you and your spouse agree on your civilian career plans?

Very well								Not Well
	1	2	3	4	5	6	7	At All

- Very well                      Not Well  
At All
- 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7 \_\_\_\_\_

- |   | Serious Problem | Somewhat of a Problem | Slight Problem | Not a Problem | Does Not Apply | Don't Know |
|---|-----------------|-----------------------|----------------|---------------|----------------|------------|
| Absence for weekend drills                    | 0               | 0                     | 0              | 0             | 0              | 0          |
| Absence for Annual Training/ACDUTRA           | 0               | 0                     | 0              | 0             | 0              | 0          |
| Absence for extra time spent at Guard/Reserve | 0               | 0                     | 0              | 0             | 0              | 0          |

- 0 Very favorable  
0 Somewhat favorable  
0 Neither favorable nor unfavorable  
0 Somewhat unfavorable  
0 Very unfavorable

44. How many dependents do you have? Do not include yourself or your spouse. For the purpose of this survey, a dependent is anyone related to you by blood, marriage, or adoption, and who depends on you for over half their support.

- 0 None, GO TO QUESTION 47
- |     |              |
|-----|--------------|
| 0 1 | 0 6          |
| 0 2 | 0 7          |
| 0 3 | 0 8          |
| 0 4 | 0 9          |
| 0 5 | 0 10 or more |

- 0 Yes, permanently

- ☐ Yes, temporarily
- ☐ No

46. How many of your dependents are UNDER 18 YEARS OLD? Mark one

- ☐ None ☐ 6
- ☐ 1 ☐ 7
- ☐ 2 ☐ 8
- ☐ 3 ☐ 9
- ☐ 4 ☐ 10 or more
- ☐ 5

## V. CIVILIAN WORK

### A. YOUR OWN EXPERIENCE

47. Are you currently: Mark all that apply

- ☐ Working full-time as a Guard/Reserve technician,  
GO TO QUESTION \_\_\_\_
- ☐ Working full-time in a civilian job (not technician)
- ☐ Working part-time in a civilian job
- ☐ With a civilian job but not at work because of temporary  
illness, vacation, strike, etc.
- ☐ Self-employed in own business
- ☐ Unpaid worker (volunteer or in family business)
- ☐ Unemployed, laid off, looking for work
- ☐ In school
- ☐ Retired
- ☐ A homemaker
- ☐ Other

48. What is your immediate (main) civilian supervisor's overall attitude toward your participation in the Guard/Reserve? Mark one

- ☐ Does not apply, I am not working at a civilian job  
GO TO QUESTION \_\_\_\_
- ☐ Does not apply, I am self-employed
- ☐ Very favorable
- ☐ Somewhat favorable
- ☐ Neither favorable nor unfavorable
- ☐ Somewhat unfavorable
- ☐ Very unfavorable

49. How much of a problem for your main employer (or for you, if self-employed) are each of the following?

	Somewhat			Does	
Serious	of a	Slight	Not a	Not	Don't

	Problem	Problem	Problem	Problem	Apply	Know
Absence for weekend drills	0	0	0	0	0	0
Absence for Annual Training/ACDUTRA	0	0	0	0	0	0
Absence for extra time spent at Guard/Reserve	0	0	0	0	0	0
Time spent at work on Guard/Reserve business	0	0	0	0	0	0

50A. What kind of work did you do, that is, what is your job called? For example, electrical engineer, construction worker, carpenter, high school teacher, typist, etc. Mark one.

- ☐ I had no civilian job in 1985, GO TO QUESTION 111
- ☐ PROFESSIONAL (teacher, doctor, engineer, social worker, writer, etc.)
- ☐ MANAGERIAL/ADMINISTRATIVE (accountant, labor relations specialist, school principal, office manager, farm manager, etc.)
- ☐ TECHNICAL (health technologist, computer programmer, electronic technician, pilot, navigator)
- ☐ SALES (sales supervisor, cashier, self-employed sales person, etc.)
- ☐ CLERICAL (secretary, bookkeeper, computer operator, mail clerk, etc.)
- ☐ CRAFTS (plumber, carpenter, precision textile machine worker, auto mechanic, etc.)
- ☐ SECURITY (police, fire fighter, protective services, etc.)
- ☐ OPERATIVE, except transportation (assembler, operator, hand work fabricator, production inspector, etc.)
- ☐ TRANSPORTATION (bus driver, crane operator, truck driver, etc.)
- ☐ LABORER, except farm (service station worker, production helper, construction laborer, etc.)
- ☐ SERVICE, including private household (food preparation and service worker, building cleaner/other service worker, etc.)
- ☐ FARM LABORER

50B. Write the name of your job in the box below.

KIND OF WORK/JOB TITLE

51. Which of the following best describes your civilian employer in 1985? Mark one

- ☐ Federal Government
- ☐ State Government
- ☐ Local Government (including public schools)
- ☐ Self-employed in own business

- ☐ Private firm with more than 500 employees
- ☐ Private firm with 100-499 employees
- ☐ Private firm with less than 100 employees
- ☐ Working without pay in family business or firm

52. What kind of organization did you work for in 1985? (For example, TV and radio manufacturing, retail shoe store, police department, etc., Federal workers: enter the Agency, Department or Government Branch for which you work.)

Write the kind of organization (business/industry) in the space below. Do not write the name of the company.

KIND OF ORGANIZATION

--

53. In 1985, how many hours per week did you usually work at your (main) civilian job?

NO. OF HOURS PER WEEK  
USUALLY WORKED

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

54. In 1985, how often did you work more than 40 hours per week at your (main) civilian job? Give your best estimate

- |                                 |  |
|---------------------------------|--|
| <input type="radio"/> None      | <input type="radio"/> 10-14 weeks      |
| <input type="radio"/> 1-4 weeks | <input type="radio"/> 15-19 weeks      |
| <input type="radio"/> 5-9 weeks | <input type="radio"/> 20 or more weeks |

55. In 1985, how were you paid when you worked over 40 hours a week? Mark one

- ☐ Not paid extra for working over 40 hours
- ☐ Paid at my regular pay rate for all hours I work



- ☐ Paid time-and-a-half
- ☐ Paid double time
- ☐ Paid more than double time

56. In 1985, did you lose opportunities for overtime/extra pay because of your Guard/Reserve obligations?

- ☐ Yes, frequently
- ☐ Yes, occasionally
- ☐ No

57. Which of the following describes how you got time off from your civilian job to meet your Guard/Reserve obligations in 1985? Include Annual Training/ACDUTRA. Mark all that apply

- ☐ Does not apply, I was self-employed. GO TO QUESTION 59
- ☐ I received military leave/leave of absence
- ☐ I used vacation days
- ☐ My Guard/Reserve obligations were on days on which I didn't work

58. Which of the following describes how you were paid for the time you took from your civilian job for Guard/Reserve obligations? Mark all that apply

- ☐ I received full civilian pay as well as military pay
- ☐ I received partial civilian pay as well as military pay
- ☐ I received only military pay
- ☐ My Guard/Reserve obligations were on days on which I didn't not work

59. During 1985, what was the TOTAL AMOUNT THAT YOU EARNED FROM ALL CIVILIAN JOBS or your own business BEFORE taxes and other deductions? Include earnings as a Guard/Reserve technician. Include commission, tips, or bonuses. Give your best estimate.

AMOUNT EARNED AT CIVILIAN JOB

\$						
	0	0	0	0	0	0
	1	1	1	1	1	1
	2	2	2	2	2	2
	3	3	3	3	3	3
	4	4	4	4	4	4
	5	5	5	5	5	5
	6	6	6	6	6	6
	7	7	7	7	7	7
	8	8	8	8	8	8
	9	9	9	9	9	9

- ☐ More than \$100,000
- ☐ None

60. In 1985, how many weeks were you without a job and looking for work?

NO. OF WEEKS  
LOOKING FOR WORK

- ☐ I had a job throughout 1985  
☐ I was not looking for work

0	0
1	1
2	2
3	3
4	4
5	5
	6
	7
	8
	9

B. YOUR SPOUSE'S WORK EXPERIENCE

61. Do you currently have a spouse?

- ☐ No, GO TO QUESTION 115  
☐ Yes  
☐ Yes, separated, GO TO QUESTION 115

62. Is your SPOUSE: Mark All that apply

- ☐ In the Armed Forces - full-time  
☐ In the Armed Forces - part-time in Guard/Reserve  
☐ Working full-time as a Guard/Reserve technician  
☐ Working full-time in other Federal civilian job  
☐ Working full-time in civilian job (not technician or other Federal)  
☐ Working part-time in Federal civilian job  
☐ Working part-time in civilian job (not Federal)  
☐ Self-employed in his or her own business  
☐ With a job, but not at work because of TEMPORARY illness, vacation, strike, etc.  
☐ Unpaid worker (volunteer or in family business)  
☐ Unemployed, laid off, or looking for work  
☐ In school  
☐ Retired  
☐ A homemaker  
☐ Other

63. Altogether in 1985, what was the total amount that YOUR SPOUSE earned from a civilian job or his or her own business, BEFORE taxes and other deductions? Include earnings as a Guard/Reserve technician. Include commissions, tips or bonuses. Give your best estimate.

# AMOUNT EARNED BY SPOUSE

\$							
	0	0	0	0	0	0	0
	1	1	1	1	1		
	2	2	2	2	2		
	3	3	3	3	3		
	4	4	4	4	4		
	5	5	5	5	5		
	6	6	6	6	6		
	7	7	7	7	7		
	8	8	8	8	8		
	9	9	9	9	9		

0 More than \$100,000  
0 None

64. How do you feel about the amount of time you spend on each activity listed below? Mark one for each activity

	I spend too much time	I spend about the right amount of time	I don't spend enough time	Does not apply
Your civilian job	0	0	0	0
Family activities	0	0	0	0
Leisure activities	0	0	0	0
Guard/Reserve activities	0	0	0	0
Community activities	0	0	0	0

65. All things considered, please indicate your level of satisfaction or dissatisfaction with each feature of the Guard/Reserve listed below

For each item, mark if you are:	Very Satis- fied	Satis- fied	Neither Satisfied Nor Dissatis- fied	Dissatis- fied	Very Dissatis- fied
Military pay and alloances	0	0	0	0	0
Commissionary privileges	0	0	0	0	0
Other military privileges (e.g., exchange, space available travel)	0	0	0	0	0
Time required at Guard/Reserve activities	0	0	0	0	0
Military retirement benefits	0	0	0	0	0
Unit social activities	0	0	0	0	0
Opportunities for education/ training	0	0	0	0	0

Opportunity to serve one's

country	0	0	0	0	0
Acquaintances/friendships	0	0	0	0	0

66. Overall, how satisfied are you with the pay and benefits you receive for the amount of time you spend on Guard/Reserve activities?

Very Dissatisfied  
1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7  
Very Satisfied

67. Overall, how satisfied are you with your participation in the Guard/Reserve?

Very Dissatisfied  
1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7  
Very Satisfied

## VI. NTC QUESTIONS

68. How Frequently over the last 12 months has a drill created a conflict with scheduled work at your job. \_\_\_\_\_

69. How many days of leave without pay have you taken in the last 12 months

to attend drills \_\_\_\_\_

to attend annual training \_\_\_\_\_

70. How many days of personnel vacation time have you taken in the last twelve months

to attend drills \_\_\_\_\_

to attend annual training \_\_\_\_\_

71. How much of a problem has your participation in the Guard been to your family in the last twelve months

\_\_\_ a serious problem  
\_\_\_ somewhat of a problem  
\_\_\_ not much of a problem  
\_\_\_ not a problem at all

72. How has Guard participation affected your civilian job performance in the last twelve months

\_\_\_ civilian job performance is better because of the Guard  
\_\_\_ civilian job performance not affected by the Guard  
\_\_\_ civilian job performance is worse because of the Guard

73. How many extra drills(4-hour periods) other than your normal drill schedule have you attended in the last 12 months.(include planning sessions, ATA's and other time whether paid or unpaid.)

74. Attendance at Guard drills and annual training often results in lost income on your civilian job. This lost income can result from taking military leave, leave without pay, missing work or overtime opportunities during drill periods, or missed sales or commissions for self employed individuals. Could you estimate the amount of lost income from your civilian job during the last 12 months due to drill and annual training attendance.

### SURVEY OF OFFICERS

#### I. MILITARY BACKGROUND

1. What is your present pay grade? Mark one

#### Officer Grades

<input type="radio"/> O-1	<input type="radio"/> O-5	<input type="radio"/> W-1
<input type="radio"/> O-2	<input type="radio"/> O-6	<input type="radio"/> W-2
<input type="radio"/> O-3	<input type="radio"/> O-7 or	<input type="radio"/> W-3
<input type="radio"/> O-4	above	<input type="radio"/> W-4

2. In what year did you first enter any branch of the military? If you first entered in the Active Force, record the year you first entered the Active Force.

#### YEAR

19

	0
	1
	2
	3
4	4
5	5
6	6
7	7
8	8
9	9

3. Through which of the following officer procurement programs did you obtain your commission/warrant? Mark one

- ☐ Academy Graduate (USMA, USNA, USAFA, and USCGA)
- ☐ Academy Graduate (U.S. Merchant Marine Academy)
- ☐ ROTC/NROTC (scholarship)
- ☐ ROTC/NROTC (nonscholarship)
- ☐ OSC/AOCS/OTS/PLC
- ☐ Aviation Cadet
- ☐ National Guard State OCS
- ☐ ANG Academy of Military Science (AMS)
- ☐ Direct Appointment (professional-medical, dental, JAG, chaplain)
- ☐ Direct appointment (all others)
- ☐ Aviation training program (exclusive of OCS/AOCS/OTS/PLC)
- ☐ Direct appointment as a warrant officer
- ☐ Direct appointment as a commissioned warrant officer
- ☐ Warrant Officer Aviation Training Program
- ☐ Other

4. When you first entered the military, in which component did you serve? Mark one

- ☐ Active Army (USA)
- ☐ Army National Guard (ARNG)
- ☐ Army Reserve (USAR)
- ☐ Active Navy (USN)
- ☐ Naval Reserve (USNR)
- ☐ Active Air Force (USAF)
- ☐ Air National Guard (ANG)
- ☐ Air Force Reserve (USAFR)
- ☐ Active Marine Corps (USMC)
- ☐ Marine Corps Reserve (USMCR)
- ☐ Active Coast Guard (USCG)
- ☐ Coast Guard Reserve (USCGR)

5. In which components have you served? Mark all that apply

- ☐ Active Army (USA)
- ☐ Army National Guard (ARNG)
- ☐ Army Reserve (USAR)
- ☐ Active Navy (USN)
- ☐ Naval Reserve (USNR)
- ☐ Active Air Force (USAF)
- ☐ Air National Guard (ANG)
- ☐ Air Force Reserve (USAFR)
- ☐ Active Marine Corps (USMC)
- ☐ Marine Corps Reserve (USMCR)
- ☐ Active Coast Guard (USCG)
- ☐ Coast Guard Reserve (USCGR)

6. In all, to the nearest year how long have you served in the Guard/Reserve? DO NOT include active duty years.

☐ Less than 1 year

	YEAR	
No. of Years Served	0	0
	1	1
	2	2
	3	3
	4	4
		5
		6
		7
		8
		9

7. In all, to the nearest year, how long did you serve in the Active Force/on active duty? Do not include your initial active duty training for the Guard/Reserve. Include service as FTS-AGR/TAR.

☐ I have never served in the Active Force  
☐ Less than 1 year

	YEAR	
No. of Years Served	0	0
	1	1
	2	2
	3	3
	4	4
		5
		6
		7
		8
		9

8. When you finally left the Active Force/active duty, what was your pay grade? Mark one

Officer Grades			Enlisted Grades	
<input type="checkbox"/> O-1	<input type="checkbox"/> O-5	<input type="checkbox"/> W-1	<input type="checkbox"/> E-1	<input type="checkbox"/> E-6

<input type="radio"/> O-2	<input type="radio"/> O-6	<input type="radio"/> W-2	<input type="radio"/> E-2	<input type="radio"/> E-7
<input type="radio"/> O-3	<input type="radio"/> O-7 or	<input type="radio"/> W-3	<input type="radio"/> E-3	<input type="radio"/> E-8
<input type="radio"/> O-4	above	<input type="radio"/> W-4	<input type="radio"/> E-4	<input type="radio"/> E-9
			<input type="radio"/> E-5	

## II. MILITARY PLANS

9. At the completion of your obligation, do you intend to continue to participate in the Guard/Reserve?

☐ Yes  
☐ No  
☐ Don't know

10. When you finally leave the Guard/Reserve, what pay grade do you think you will have? Mark one

### Officer Grades

<input type="radio"/> O-1	<input type="radio"/> O-5	<input type="radio"/> W-1
<input type="radio"/> O-2	<input type="radio"/> O-6	<input type="radio"/> W-2
<input type="radio"/> O-3	<input type="radio"/> O-7 or	<input type="radio"/> W-3
<input type="radio"/> O-4	above	<input type="radio"/> W-4

11. How likely are you to stay in the Guard/Reserve until retirement? Assume that all special pays which you currently receive are still available. Mark one.

☐ Does not apply, I have already qualified for retired pay  
☐ (0 in 10) No chance  
☐ (1 in 10) Very slight possibility  
☐ (2 in 10) Slight possibility  
☐ (3 in 10) Some possibility  
☐ (4 in 10) Fair possibility  
☐ (5 in 10) Fairly good possibility  
☐ (6 in 10) Good possibility  
☐ (7 in 10) Probable  
☐ (8 in 10) Very probable  
☐ (9 in 10) Almost sure  
☐ (10 in 10) Certain

12. If required drills were increased an additional two (2) four-hour drills per month, how likely would you be to stay in the Guard/Reserve until retirement?

☐ (0 in 10) No chance  
☐ (1 in 10) Very slight possibility  
☐ (2 in 10) Slight possibility  
☐ (3 in 10) Some possibility  
☐ (4 in 10) Fair possibility



- 0 (5 in 10) Fairly good possibility
- 0 (6 in 10) Good possibility
- 0 (7 in 10) Probable
- 0 (8 in 10) Very probable
- 0 (9 in 10) Almost sure
- 0 (10 in 10) Certain

13. If annual training/ACDUTRA was increased by an additional 5 days, how likely would you be to stay in the Guard/Reserve until retirement?

- 0 (0 in 10) No chance
- 0 (1 in 10) Very slight possibility
- 0 (2 in 10) Slight possibility
- 0 (3 in 10) Some possibility
- 0 (4 in 10) Fair possibility
- 0 (5 in 10) Fairly good possibility
- 0 (6 in 10) Good possibility
- 0 (7 in 10) Probable
- 0 (8 in 10) Very probable
- 0 (9 in 10) Almost sure
- 0 (10 in 10) Certain

14. People participate in the Guard/Reserve for many reasons. How much have each of the following contributed to your most recent decision to stay in the Guard/Reserve? Mark one for each item

	Major Contribu- tion	Moderate Contribu- tion	Minor Contribu- tion	No Contribu- tion
Serving the country	0	0	0	0
Using educational benefits	0	0	0	0
Obtaining training in a skill that would help get a civilian job	0	0	0	0
Serving with the people in the unit	0	0	0	0
Getting credit toward Guard/ Reserve retirement	0	0	0	0
Promotion opportunities	0	0	0	0
Opportunity to use military equipment	0	0	0	0
Challenge of military training	0	0	0	0
Needed the money for basic family expenses	0	0	0	0
Wanted extra money to use now	0	0	0	0
Saving income for the future	0	0	0	0
Travel/"get away" opportunities	0	0	0	0
Just enjoyed the Guard/Reserve	0	0	0	0
Pride in my accomplishments in the Guard/Reserve	0	0	0	0

III. MILITARY TRAINING, BENEFITS AND PROGRAMS

15. How similar is your civilian job to your Guard/Reserve duty?

- ☐ Does not apply, I don't have a civilian job
- ☐ Does not apply, I am a Guard/Reserve technician
- ☐ Very similar
- ☐ Similar
- ☐ Somewhat similar
- ☐ Not similar at all

16. In calendar year 1985, in which of the following did you participate in/perform? Mark all that apply

- ☐ Federal mobilization
- ☐ State mobilization
- ☐ Local cal-up
- ☐ Annual Training/ACDUTRA
- ☐ Active duty
- ☐ Initial or extended active duty for training
- ☐ Guard/Reserve work at home or on my civilian job

17. In 1985, how many days of Annual Training/ACDUTRA did you attend?  
Do not include school unless used to satisfy your Annual Training/ACDUTRA requirement.

NO. OF DAYS

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

☐ Did not attend 1985 Annual Training/ACDUTRA

18. Did you attend 1985 Annual Training/ACDUTRA a few days at a time, a week or more at a time, or all at once?

- ☐ Did not attend 1985 Annual Training/ACDUTRA
- ☐ A few days at a time, several times over the year
- ☐ A week or more at a time
- ☐ All at once

19. In calendar year 1985, how many paid "Mandays," in addition to any regular drill days and Annual Training/ACDUTRA, did you serve?

0 None

PAID MANDAYS

0	0	0
1	1	1
2	2	2
3	3	3
	4	4
	5	5
	6	6
	7	7
	8	8
	9	9

20. How satisfied are you with the training received during your unit drills?

Very Dissatisfied  
1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7  
Very Satisfied

21. How satisfied are you with the opportunities you have to use your MOS/Designator/Specialty skills during unit drills?

Very Dissatisfied  
1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7  
Very Satisfied

22. How satisfied are you with the opportunities you have for promotion in your unit?

Very Dissatisfied  
1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7  
Very Satisfied

23. How satisfied are you with your opportunities for leadership in your unit?

Very Dissatisfied  
1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7  
Very Satisfied

24. In general, how would you describe the weapons or equipment your unit uses during your unit drills?

Out of Date  
1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7  
Up to Date

- Poor 1 2 3 4 5 6 Excellent 7

- 0 Does not apply, I didn't attend 1985 Annual Training/ACDUTRA

Very Dissatisfied							Very Satisfied
1	2	3	4	5	6	7	

- |           |   |   |   |   |   |           |
|-----------|---|---|---|---|---|-----------|
| Morale is |   |   |   |   |   | Morale is |
| Very Low  |   |   |   |   |   | Very High |
| 1         | 2 | 3 | 4 | 5 | 6 | 7         |

- | Very Dissatisfied |   |   |   |   |   | Very Satisfied |
|-------------------|---|---|---|---|---|----------------|
| 1                 | 2 | 3 | 4 | 5 | 6 | 7              |

- 0 Less than 1 year

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

- A-28

0 No, GO TO QUESTION 31, Section IV below

IV. INDIVIDUAL AND FAMILY CHARACTERISTICS

31. Are you male or female?

- ☐ Male  
☐ Female

32. How old were you on your last birthday?

AGE LAST  
BIRTHDAY

	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
	8
	9

33. Are you:

- ☐ American Indian/Alaskan Native  
☐ Black/Negro/Afro-American  
☐ Oriental/Asian/Chinese/Japanese/Korean/Filipino/  
Pacific Islander  
☐ White/Caucasian  
☐ Other

34. AS OF TODAY, what is the highest grade or year of regular school or college that you have completed and gotten credit for? Mark one

ELEMENTARY GRADES		HIGH SCHOOL GRADES	COLLEGE YEARS OF CREDIT	
<input type="radio"/> 1st	<input type="radio"/> 5th	<input type="radio"/> 9th	<input type="radio"/> 1	<input type="radio"/> 5
<input type="radio"/> 2nd	<input type="radio"/> 6th	<input type="radio"/> 10th	<input type="radio"/> 2	<input type="radio"/> 6
<input type="radio"/> 3rd	<input type="radio"/> 7th	<input type="radio"/> 11th	<input type="radio"/> 3	<input type="radio"/> 7
<input type="radio"/> 4th	<input type="radio"/> 8th	<input type="radio"/> 12th	<input type="radio"/> 4	<input type="radio"/> 8
		(Include GED)		or more

35. AS OF TODAY, what is the highest degree or diploma that you hold?  
Do not include degrees from Technical, Trade or Vocational schools. Mark one

DEGREE NOW

- ☐ No Degree or Diploma
- ☐ GED Certificate
- ☐ Certificate of Completion/Attendance
- ☐ Home Study Diploma
- ☐ High School Diploma
- ☐ Associate/Junior College Degree
- ☐ Bachelor's Degree (BA/BS)
- ☐ Master's Degree (MA/MS)
- ☐ Doctoral Degree (PhD/MD/LLB)
- ☐ Other degree not listed above

36. Are you currently:

- ☐ Married for the first time
- ☐ Remarried
- ☐ Widowed, GO TO QUESTION 42
- ☐ Divorced, GO TO QUESTION 42
- ☐ Separated, GO TO QUESTION 42
- ☐ Single, never married, GO TO QUESTION 42

37. How long have you been married to your current spouse?

- ☐ Less than 1 year

NO. OF YEARS MARRIED

0	0
1	1
2	2
3	3
4	4
	5
	6
	7
	8
	9

38. How well do you and your spouse agree on your civilian career plans?

Very Well Not Well  
At All  
 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7

39. How well do you and your spouse agree on your military career plans?

Very Well Not Well  
 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7 At All

40. How much of a problem for your family are each of the following?  
 Mark one for each item

	Serious Problem	Somewhat of a Problem	Slight Problem	Not a Problem	Does Not Apply	Don't Know
Absence for weekend drills	0	0	0	0	0	0
Absence for Annual Training/ ACDUTRA	0	0	0	0	0	0
Absence for extra time spent at Guard/Reserve	0	0	0	0	0	0

41. What is your spouse's overall attitude toward your participation in the Guard/Reserve? Mark one

- ☐ Very favorable
- ☐ Somewhat favorable
- ☐ Neither favorable nor unfavorable
- ☐ Somewhat unfavorable
- ☐ Very unfavorable

EVERYBODY ANSWER:

42. How many dependents do you have? Do not include yourself or your spouse. For the purpose of this survey, or adoption, and who depends on you for over half their support.

- ☐ None, GO TO QUESTION 45
- ☐ 1 0 6
- ☐ 2 0 7
- ☐ 3 0 8
- ☐ 4 0 9
- ☐ 5 0 10 or more

43. Are any of your dependents physically, emotionally, or intellectually handicapped requiring specialized treatment, therapy, education, training, or counseling? Mark all that apply

- ☐ Yes, permanently
- ☐ Yes, temporarily
- ☐ No

44. How many of your dependents are UNDER 18 YEARS OLD? Mark one

- ☐ None, ☐ 6

0	1	0	7
0	2	0	8
0	3	0	9
0	4	0	10 or more
0	5		

V. CIVILIAN WORK

A. YOUR OWN EXPERIENCE

45. Are you currently: Mark all that apply

- ☐ Working full-time as a Guard/Reserve technician,  
GO TO QUESTION 48A
- ☐ Working full-time in a civilian job (not technician)
- ☐ Working part-time in a civilian job
- ☐ With a civilian job but not at work because of  
temporary illness, vacation, strike, etc.
- ☐ Self-employed in own business
- ☐ Unpaid worker (volunteer or in family business)
- ☐ Unemployed, laid off, looking for work
- ☐ In school
- ☐ Retired
- ☐ A homemaker
- ☐ Other

46. What is your immediate (main) civilian supervisor's overall attitude toward your participation in the Guard/Reserve? Mark one

- ☐ Does not apply, I am not working at a civilian job  
GO TO QUESTION 48A
- ☐ Does not apply, I am self-employed
- ☐ Very favorable
- ☐ Somewhat favorable
- ☐ Neither favorable nor unfavorable
- ☐ Somewhat unfavorable
- ☐ Very unfavorable

47. How much of a problem for your main employer (or for you, if self-employed) are each of the following? Mark one for each item

	Serious Problem	Somewhat of a Problem	Slight Problem	Not a Problem	Does Not Apply	Don't Know
Absence for weekend drills	0	0	0	0	0	0
Absence for Annual Training/ ACDUTRA	0	0	0	0	0	0
Absence for extra time spent at Guard/Reserve	0	0	0	0	0	0
Time spent at work on Guard/Reserve business	0	0	0	0	0	0



THE NEXT QUESTIONS ARE ABOUT YOUR CIVILIAN JOB IN 1985. IF YOU HAD MORE THAN ONE JOB, PLEASE ANSWER THESE QUESTIONS FOR THE JOB WHERE YOU WORKED THE MOST HOURS PER WEEK FOR MOST OF THE YEAR.

48A. What kind of work did you do, that is, what is your job called? For example, electrical engineer, construction worker, carpenter, high school teacher, typist, etc.

- ☐ I had no civilian job in 1985. GO TO QUESTION 111
- ☐ PROFESSIONAL (teacher, doctor, engineer, social worker, writer, etc.)
- ☐ MANAGERIAL/ADMINISTRATIVE (accountant, labor relations specialist, school principal, office manager, farm manager, etc.)
- ☐ TECHNICIAN (health technologist, computer programmer, electronic technician, pilot, navigator)
- ☐ SALES (sales supervisor, cashier, self-employed sales person, etc.)
- ☐ CLERICAL (secretary, bookkeeper, computer operator, mail clerk, etc.)
- ☐ CRAFTS (plumber, carpenter, precision textile machine worker, auto mechanic, etc.)
- ☐ SECURITY (police, fire fighter, protective services, etc.)
- ☐ OPERATIVE, except transportation (assembler, operator, hand work, fabricator, production inspector, etc.)
- ☐ TRANSPORTATION (bus driver, crane operator, truck driver, etc.)
- ☐ LABORER, except farm (service station worker, production helper, construction laborer, etc.)
- ☐ SERVICE, including private household (food preparation and service worker, building cleaner/other service worker, etc.)
- ☐ FARM LABORER

48B. Write the name of your job in the box below.

KIND OF WORK/JOB TITLE

--

49. Which of the following best describes your civilian employer in 1985?  
Mark one

- ☐ Federal Government
- ☐ State Government
- ☐ Local Government (including public schools)
- ☐ Self-employed in own business
- ☐ Private firm with more than 500 employees
- ☐ Private firm with 100-499 employees
- ☐ Private firm with less than 100 employees
- ☐ Working without pay in family business or farm

50. In 1985, how many hours per week did you usually work at your (main) civilian job?

NO. OF HOURS PER WEEK  
USUALLY WORKED

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

51. In 1985, how often did you work more than 40 hours per week at your (main) civilian job? Give your best estimate

- |                                 |  |
|---------------------------------|--|
| <input type="radio"/> None      | <input type="radio"/> 10-14 weeks      |
| <input type="radio"/> 1-4 weeks | <input type="radio"/> 15-19 weeks      |
| <input type="radio"/> 5-9 weeks | <input type="radio"/> 20 or more weeks |

52. In 1985, how were you paid when you worked over 40 hours a week? Mark one

- ☐ Not paid extra for working over 40 hours  
☐ Paid at my regular pay rate for all hours I work  
☐ Paid time-and-a-half  
☐ Paid double time  
☐ Paid more than double time

53. In 1985, did you lose opportunities for overtime/extra pay because of your Guard/Reserve obligations?

- ☐ Yes, frequently  
☐ Yes, occasionally  
☐ No

54. In 1985, how many days of paid vacation did you receive from your (main) civilian job?

NO. DAYS OF PAID VACATION

0	0
1	1
2	2
3	3

☐ I didn't receive paid vacation

4	4
5	5
6	6
	7
	8
	9

55. Which of the following describes how you got time off from your civilian job to meet your Guard/Reserve obligations in 1985? Include Annual Training/ACDUTRA. Mark all that apply

- ☐ Does not apply, I was self-employed. GO TO QUESTION 108
- ☐ I received military leave/leave of absence
- ☐ I used vacation days
- ☐ My Guard/Reserve obligations were on days on which I didn't work

56. Which of the following describes how you were paid for the time you took from your civilian job for Guard/Reserve obligations? Mark all that apply

- ☐ I received full civilian pay as well as military pay
- ☐ I received partial civilian pay as well as military pay
- ☐ I received only military pay
- ☐ My Guard/Reserve obligations were on days on which I didn't work

57. During 1985, what was the TOTAL AMOUNT THAT YOU EARNED FROM ALL CIVILIAN JOBS or your own business BEFORE taxes and other deductions? Do not include earnings as a Guard/Reserve technician. Include commissions, tips, or bonuses. Give your best estimate.

AMOUNT EARNED AT CIVILIAN JOB

\$						0	0
	0	0	0	0	0	0	0
	1	1	1	1	1		
	2	2	2	2	2		
	3	3	3	3	3		
	4	4	4	4	4		
	5	5	5	5	5		
	6	6	6	6	6		
	7	7	7	7	7		
	8	8	8	8	8		
	9	9	9	9	9		

- ☐ More than \$1000,000
- ☐ None

58. In 1985, how many weeks were you without a job and looking for work?

NO. OF WEEKS

LOOKING FOR WORK

- 0 I had a job throughout 1985  
0 I was not looking for work

<u>0</u>	<u>0</u>
<u>1</u>	<u>1</u>
<u>2</u>	<u>2</u>
<u>3</u>	<u>3</u>
<u>4</u>	<u>4</u>
<u>5</u>	<u>5</u>
	<u>6</u>
	<u>7</u>
	<u>8</u>
	<u>9</u>

**B. YOUR SPOUSE'S WORK EXPERIENCE**

59. Do you currently have a spouse?

- ☐ No, GO TO QUESTION 115  
☐ Yes  
☐ Yes, separated, GO TO QUESTION 115

60. Is your SPOUSE: Mark ALL that apply

- ☐ In the Armed Forces - full-time  
☐ In the Armed Forces - part-time in Guard/Reserve  
☐ Working full-time as a Guard/Reserve technician  
☐ Working full-time in other Federal civilian job  
☐ Working full-time in civilian job (not technician or other Federal)  
☐ Working part-time in Federal civilian job  
☐ Working part-time in civilian job (not Federal)  
☐ Self-employed in his or her own business  
☐ With a job, but not at work because of TEMPORARY illness, vacation, strike, etc.  
☐ Unpaid worker (volunteer or in family business)  
☐ Unemployed, laid off, or looking for work  
☐ In school  
☐ Retired  
☐ A homemaker  
☐ Other

61. In 1985, how many weeks did YOUR SPOUSE work for pay, either full- or part-time, at a civilian job? Include weeks that your spouse was on paid vacation and paid sick leave. Give your best estimate.

- ☐ None, GO TO QUESTION 115

NO. OF WEEKS WORKED

0	0
1	1
2	2
3	3
4	4
5	5
	6
	7
	8
	9

62. Altogether in 1985, what was the total amount that YOUR SPOUSE earned from a civilian job or his or her own business, BEFORE taxes and other deductions? Include earnings as a Guard/Reserve technician. Include commissions, tips or bonuses. Give your best estimate.

AMOUNT EARNED BY SPOUSE

\$						0	0
	0	0	0	0	0	0	0
	1	1	1	1	1		
	2	2	2	2	2		
	3	3	3	3	3		
	4	4	4	4	4		
	5	5	5	5	5		
	6	6	6	6	6		
	7	7	7	7	7		
	8	8	8	8	8		
	9	9	9	9	9		

0 More than \$1000,000  
0 None

VI. MILITARY LIFE

63. How do you feel about the amount of time you spend on each activity listed below? Mark one for each activity

	I spend too much time	I spend about the right amount of time	I don't spend enough time	Does not apply
Your civilian job	0	0	0	0
Family activities	0	0	0	0
Leisure activities	0	0	0	0
Guard/Reserve activities	0	0	0	0

64. All things considered, please indicate your level of satisfaction or dissatisfaction with each feature of the Guard/Reserve listed below.

For each item, mark if you are:	Very Satis- fied	Satis- fied	Neither Satisfied Nor Dissatisfied	Dissatis- fied	Very Dissatis- fied
Military pay and allowances	0	0	0	0	0
Commissary privileges	0	0	0	0	0
Other military privileges (e.g., exchange, space available travel)	0	0	0	0	0
Time required at Guard/ Reserve activities	0	0	0	0	0
Military retirement benefits	0	0	0	0	0
Unit social activities	0	0	0	0	0
Opportunities for educa- tion/training	0	0	0	0	0
Opportunity to serve one's country	0	0	0	0	0
Acquaintances/friendships	0	0	0	0	0

65. Overall, how satisfied are you with the pay and benefits you receive for the amount of time you spend on Guard/Reserve activities?

Very Dissatisfied  
1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7  
Very Satisfied

66. Overall, how satisfied are you with your participation in the Guard/Reserve?

Very Dissatisfied  
1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7  
Very Satisfied

## VII. NTC QUESTIONS

67. How Frequently over the last 12 months has a drill created a conflict with scheduled work at your job. \_\_\_\_\_

68. How many days of leave without pay have you taken in the last 12 months

to attend drills \_\_\_\_\_

to attend annual training \_\_\_\_\_

69. How many days of personnel vacation time have you taken  
in the last twelve months

to attend drills \_\_\_\_\_

to attend annual training \_\_\_\_\_

70. How much of a problem has your participation in  
the Guard been to your family in the last twelve months

- ☐ a serious problem
- ☐ somewhat of a problem
- ☐ not much of a problem
- ☐ not a problem at all

71. How has Guard participation affected your civilian  
job performance in the last twelve months

- ☐ civilian job performance is better because of the Guard
- ☐ civilian job performance not affected by the Guard
- ☐ civilian job performance is worse because of the Guard

72. How many extra drills(4-hour periods) other than your normal  
drill schedule have you attended in the last 12 months.(include planning  
sessions, ATA's and other time whether paid or unpaid.)

73. Attendance at Guard drills and annual training often results in lost  
income on your civilian job. This lost income can result from taking  
military leave, leave without pay, missing work or overtime opportunities  
during drill periods, or missed sales or commissions for self employed  
individuals. Could you estimate the amount of lost income from your  
civilian job during the last 12 months due to drill and annual training  
attendance.

## SURVEY OF SPOUSES

### I. THE GUARD/RESERVE COMMUNITY

1. Guard/Reserve units or centers have different kinds of programs and  
activities for family members.

For each program or activity listed below, please mark in (A)  
if it has been available at your spouse's unit, and in (B) if you

have attended or participated in it.

	(A)			(B)			
	Available			Did You			
	Yes	No	Don't Know	Attend/Participate More Than Once	Once	Don't No Recall	
Meetings for families of new unit members	0	0	0	0	0	0	0
Family oriented social events, dinner, athletic programs, bake sales, etc.	0	0	0	0	0	0	0
Family oriented informa- tion programs about the Guard/Reserve	0	0	0	0	0	0	0

## II. FAMILY MILITARY EXPERIENCE

2. What is your spouse's present pay grade?

Enlisted Grades		Officer Grades	
<input type="radio"/> E-1	<input type="radio"/> 0-1	<input type="radio"/> W-1	
<input type="radio"/> E-2	<input type="radio"/> 0-2	<input type="radio"/> W-2	
<input type="radio"/> E-3	<input type="radio"/> 0-3	<input type="radio"/> W-3	
<input type="radio"/> E-4	<input type="radio"/> 0-4	<input type="radio"/> W-4	
<input type="radio"/> E-5	<input type="radio"/> 0-5		
<input type="radio"/> E-6	<input type="radio"/> 0-6		
<input type="radio"/> E-7	<input type="radio"/> 0-7 or above		
<input type="radio"/> E-8			
<input type="radio"/> E-9			

☐ Don't know/unsure

3. How likely is your spouse to STAY in the Guard/  
Reserve at the end of any current term/obligation?  
Mark one

- ☐ (0 in 10) No chance
- ☐ (1 in 10) Very slight possibility
- ☐ (2 in 10) Slight possibility
- ☐ (3 in 10) Some possibility
- ☐ (4 in 10) Fair possibility
- ☐ (5 in 10) Fairly good possibility
- ☐ (6 in 10) Good possibility
- ☐ (7 in 10) Probable
- ☐ (8 in 10) Very probable
- ☐ (9 in 10) Almost sure
- ☐ (10 in 10) Certain



4. How many more years does your spouse plan on serving in the Guard/Reserve? Mark the answer which best describes your spouse's plans.

- ☐ Less than one year
- ☐ 1-2 years
- ☐ 2-3 years
- ☐ 3-5 years
- ☐ 5-8 years
- ☐ 8-10 years
- ☐ 10-12 years
- ☐ 12-16 years
- ☐ 17 or more years

5. If required drills were increased an additional two (2) four-hour drills per month how likely would your spouse be to stay in the Guard/Reserve beyond any current term/obligation?

- ☐ Does not apply, he/she does not drill
- ☐ (0 in 10) No chance
- ☐ (1 in 10) Very slight possibility
- ☐ (2 in 10) Slight possibility
- ☐ (3 in 10) Some possibility
- ☐ (4 in 10) Fair possibility
- ☐ (5 in 10) Fairly good possibility
- ☐ (6 in 10) Good possibility
- ☐ (7 in 10) Probable
- ☐ (8 in 10) Very probable
- ☐ (9 in 10) Almost sure
- ☐ (10 in 10) Certain
- ☐ Don't know

6. If Annual Training/ACDUTRA was increased by an additional 5 days, how likely would your spouse be to stay in the Guard/Reserve beyond any current term/obligation?

- ☐ Does not apply, he/she does not attend Annual Training/ACDUTRA
- ☐ (0 in 10) No chance
- ☐ (1 in 10) Very slight possibility
- ☐ (2 in 10) Slight possibility
- ☐ (3 in 10) Some possibility
- ☐ (4 in 10) Fair possibility
- ☐ (5 in 10) Fairly good possibility
- ☐ (6 in 10) Good possibility
- ☐ (7 in 10) Probable
- ☐ (8 in 10) Very probable
- ☐ (9 in 10) Almost sure

☐ (10 in 10) Certain

☐ Don't know

7. Was your spouse's original decision to join the Guard/Reserve made before or after your marriage?

☐ Before

☐ After

### III. YOUR BACKGROUND AND FAMILY

This set of questions will be used to describe Guard/Reserve families.

8. Are you male or female?

☐ Male

☐ Female

9. How old were you on your last birthday?

0	0
1	1
2	2
3	3
4	4
5	5
6	6
	7
	8
	9

10. Are you:

☐ American Indian/Alaskan Native

☐ Black/Negro/Afro-American

☐ Oriental/Asian/Chinese/Japanese/Korean/Filipino

☐ Pacific Islander

☐ White/Caucasian

☐ Other

11. AS OF TODAY, what is the highest grade or year of regular school or college that you have completed and gotten credit for? Mark one

Elementary

High School

College

Grades		Grades	Years of Credit	
<input type="radio"/> 1st	<input type="radio"/> 5th	<input type="radio"/> 9th	<input type="radio"/> 1	<input type="radio"/> 5
<input type="radio"/> 2nd	<input type="radio"/> 6th	<input type="radio"/> 10th	<input type="radio"/> 2	<input type="radio"/> 6
<input type="radio"/> 3rd	<input type="radio"/> 7th	<input type="radio"/> 11th	<input type="radio"/> 3	<input type="radio"/> 7
<input type="radio"/> 4th	<input type="radio"/> 8th	<input type="radio"/> 12th	<input type="radio"/> 4	<input type="radio"/> 8 or more

(Include GED)

12. Are you currently:

- ☐ Married for the first time  
☐ Remarried

13. How long have you been married to your current spouse?

- ☐ Less than 1 year

NO. YEARS MARRIED

0	0
1	1
2	2
3	3
4	4
	5
	6
	7
	8
	9

14. How many dependents do you and your spouse have? Do not include yourself or your spouse. For the purpose of this survey, a dependent is anyone related to you by blood, marriage, or adoption, and who depends on you for over half their support

☐ None, GO TO QUESTION 45, Section IV

- |                         |                                  |
|-------------------------|----------------------------------|
| <input type="radio"/> 1 | <input type="radio"/> 6          |
| <input type="radio"/> 2 | <input type="radio"/> 7          |
| <input type="radio"/> 3 | <input type="radio"/> 8          |
| <input type="radio"/> 4 | <input type="radio"/> 9          |
| <input type="radio"/> 5 | <input type="radio"/> 10 or more |

15. Are any of these dependents physically, emotionally, or intellectually handicapped requiring specialized treatment, therapy, education, training, or counseling? Mark all that apply

- ☐ Yes, permanently
- ☐ Yes, temporarily
- ☐ No

16. How many of these dependents are UNDER 18 YEARS OLD? Mark one

☐ None, GO TO QUESTION 45, Section IV

- |                         |                                  |
|-------------------------|----------------------------------|
| <input type="radio"/> 1 | <input type="radio"/> 6          |
| <input type="radio"/> 2 | <input type="radio"/> 7          |
| <input type="radio"/> 3 | <input type="radio"/> 8          |
| <input type="radio"/> 4 | <input type="radio"/> 9          |
| <input type="radio"/> 5 | <input type="radio"/> 10 or more |

#### IV. FAMILY WORK EXPERIENCE

17. Are you currently: Mark ALL that apply

- ☐ In the Armed Forces -- full time
- ☐ In the Armed Forces -- part-time in Guard/Reserves
- ☐ Working full-time as a Guard/Reserve technician
- ☐ Working full-time in other Federal civilian job
- ☐ Working full-time in a civilian job  
(not technician or other Federal)
- ☐ Working part-time in Federal civilian job
- ☐ Working part-time in a civilian job (not Federal)
- ☐ Self-employed in own business
- ☐ With a job, but not at work because of TEMPORARY  
illness, vacation, strike, etc.
- ☐ Unpaid worker (volunteer or in family business)
- ☐ Unemployed, laid off, or looking for work
- ☐ In school
- ☐ Retired
- ☐ A homemaker
- ☐ Other

18. In 1986, how many weeks did you work for pay, either full- or part-time, at a civilian job (Federal or other)? Include weeks that you were on paid vacation and paid sick leave. Give your best estimate

☐ None, GO TO QUESTION 53

NO. OF WEEKS WORKED

0	0
1	1
2	2
3	3

4	4
5	5
	6
	7
	8
	9

THE NEXT QUESTIONS ARE ABOUT YOUR CIVILIAN JOB IN 1985. IF YOU HAD MORE THAN ONE JOB, PLEASE ANSWER THESE QUESTIONS FOR THE JOB WHERE YOU WORKED THE MOST HOURS PER WEEK FOR MOST OF THE YEAR.

19. What kind of work did you do, that is, what was your job called? (For example, electrical engineer, construction worker, carpenter, high school teacher, typist, etc.) Mark the category which most clearly describes the kind of work you did.

- ☐ I had no civilian job in 1985, GO TO QUESTION 53
- ☐ PROFESSIONAL (teacher, registered nurse, social worker, worker, writer, artis, etc.)
- ☐ MANAGERIAL/ADMINISTRATIVE (accountant, rancher/farmer, labor relations specialist, school principal, office manager, etc.)
- ☐ TECHNICAL (health technologist, computer programmer, electronic technician, pilot, navigator, etc.)
- ☐ SALES (sales supervisor, cashier, self-employed sales person, etc.)
- ☐ CLERICAL (secretary, bookkeeper, computer operator, mail clerk, etc.)
- ☐ CRAFTS (plumber, carpenter, precision textile machine worker, auto mechanic, etc.)
- ☐ SECURITY (police, fire fighter, protective services)
- ☐ OPERATIVE, except transportation (assembler, sewing machine operator, hand work, fabricator, production inspector, etc.)
- ☐ TRANSPORTATION (bus driver, crane operator, truck driver, longshoreman, etc.)
- ☐ LABORER, except farm (production helper, construction laborer, etc.)
- ☐ SERVICE, including private household (food preparation and service worker, building cleaner/other service worker, private household worker, etc.)
- ☐ FARM LABORER

20. How much did each of the following contribute to your decision to work? Mark one for each item

Major Contribu- tion	Moderate Contribu- tion	Minor Contribu- tion	No Contribu- tion
----------------------------	-------------------------------	----------------------------	-------------------------

Needed the money for basic family expenses	0	0	0	0
Always planned to work/ have a career	0	0	0	0
Wanted extra money to use now	0	0	0	0
Saving income for the future	0	0	0	0
Independence/self esteem	0	0	0	0
Just enjoy working	0	0	0	0
To gain experience for a future career	0	0	0	0

21. In 1985, how many hours per week did you usually work at your (main) civilian job?

NO. OF HOURS

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

22. Altogether in 1985, what was the TOTAL AMOUNT YOU EARNED FROM YOUR CIVILIAN JOB or your business, before taxes and other deductions? Include commissions, tips, or bonuses. Give your best estimate

0 None

AMOUNT EARNED AT CIVILIAN JOB

\$ | | , | | | 0 | 0 |

0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8

9 9 9 9 9

0 More than \$100,000.00

EVERYBODY ANSWER:

23. Is your spouse CURRENTLY: Mark ALL that apply

- ☐ In the Armed Forces -- full-time
- ☐ In the Armed Forces -- part-time in Guard/Reserve
- ☐ Working full-time as a Guard/Reserve technician
- ☐ Working full-time in other Federal civilian job
- ☐ Working full-time in a civilian job  
(not technician or other Federal)
- ☐ Working part-time in Federal civilian job
- ☐ Working part-time in a civilian job (not Federal)
- ☐ Self-employed in his or her own business
- ☐ With a job, but not at work because of TEMPORARY  
illness, vacation, strike, etc.
- ☐ Unpaid worker (volunteer or in family business)
- ☐ Unemployed, laid off, or looking for work
- ☐ In school
- ☐ Retired
- ☐ A homemaker
- ☐ Other

24. Altogether in 1985, what was the total amount that YOUR SPOUSE earned from a civilian job or his or her own business, before taxes and other deductions? (Do not include military earnings. Include commissions, tips, or bonuses.) Give your best estimate

☐ None

AMOUNT EARNED BY SPOUSE

\$ | | , | | | | 0 | 0 |

0 0 0 0 0      0 0  
1 1 1 1 1  
2 2 2 2 2  
3 3 3 3 3  
4 4 4 4 4  
5 5 5 5 5  
6 6 6 6 6  
7 7 7 7 7  
8 8 8 8 8  
9 9 9 9 9

0 More than \$100,000.00

25. For all of 1985, what was your spouse's TOTAL MILITARY INCOME

before taxes and deductions? Include any pay from drills, Annual Training (Summer Camp/ACDUTRA), Bonuses, and any call-ups or other active duty or active duty for training. (Include earnings as a full-time member of the Armed Forces.) Please give your best estimate

0 None

SPOUSE'S TOTAL MILITARY INCOME

\$ | | , | | | | 0 | 0 |

0 0 0 0 0 0 0  
1 1 1 1 1  
2 2 2 2 2  
3 3 3 3 3  
4 4 4 4 4  
5 5 5 5 5  
6 6 6 6 6  
7 7 7 7 7  
8 8 8 8 8  
9 9 9 9 9

0 More than \$100,000.00

26. How much of a problem for you and your family are each of the following?  
Mark one for each item

	Serious Problem	Somewhat of a Problem	Slight Problem	Not a Problem	Does not Apply	Don't Know
Absence for weekend drills	0	0	0	0	0	0
Absence for Annual Training/ACDUTRA	0	0	0	0	0	0
Absence for extra time spent at Guard/Reserve	0	0	0	0	0	0
Time away from civilian job due to Guard/Reserve duty	0	0	0	0	0	0
Effects on pay and promotion at civilian job due to Guard/Reserve duty	0	0	0	0	0	0
Time away from children due to Guard/Reserve duty	0	0	0	0	0	0
Time away from you due to Guard/Reserve duty	0	0	0	0	0	0
Drills on special days						



(e.g., Mothers Day, Easter)	0	0	0	0	0	0
Unscheduled Guard/ Reserve activities	0	0	0	0	0	0
Scheduling family vacations	0	0	0	0	0	0
Family emergencies when spouse is on Guard/ Reserve duty	0	0	0	0	0	0

27. How do you feel about the amount of time your spouse spends on each activity listed below?

	Spends too much time	Spends about the right amount of time	Doesn't spend enough time	Does not apply
Civilian job	0	0	0	0
Family activities	0	0	0	0
Leisure activities	0	0	0	0
Guard/Reserve activities	0	0	0	0

#### V. FAMILY CONCERNS

28. People participate in the Guard/Reserve for many reasons. How much have each of the following contribution to your spouse's most recent decision to stay in the Guard/Reserve? Mark one for each item

	Major Contribu- tion	Moderate Contribu- tion	Minor Contribu- tion	No Contribu- tion
Serving the country	0	0	0	0
Using educational benefits	0	0	0	0
Obtaining training in a skill that would help get a civilian job	0	0	0	0
Serving with the people in the unit	0	0	0	0
Getting credit toward military retirement	0	0	0	0
Promotion opportunities	0	0	0	0
Opportunity to use military equipment	0	0	0	0
Challenge of military training	0	0	0	0
Need the money for basic family expenses	0	0	0	0
Wanted extra money to use now	0	0	0	0

Saving income for the future	0	0	0	0
Travel/"get away" opportunities	0	0	0	0
Just enjoyed the Guard/Reserve	0	0	0	0
Pride in his/her accomplishments in the Guard/Reserve	0	0	0	0

29. All things considered, please indicate your level of satisfaction or dissatisfaction with each feature of your spouse's participation in the Guard/Reserve listed below.

	Very Satisfied	Satisfied	Neither Satisfied Nor Dissatisfied	Dissatisfied	Very Dissatisfied
Military pay and allowances	0	0	0	0	0
Commissary privileges	0	0	0	0	0
Other military privilege (e.g., exchange, space available travel)	0	0	0	0	0
Time required at Guard/Reserve activities	0	0	0	0	0
Military retirement benefits	0	0	0	0	0
Unit social activities	0	0	0	0	0
Opportunities for education/training	0	0	0	0	0
Opportunity to serve one's country	0	0	0	0	0
Acquaintances/friendships	0	0	0	0	0

30. What is your overall attitude toward your spouse's participation in the Guard/Reserve? Mark one

☐ Very favorable  
☐ Somewhat favorable  
☐ Neither favorable nor unfavorable  
☐ Somewhat unfavorable  
☐ Very unfavorable

APPENDIX B

DRAFT SURVEY FOR SEPARATING GUARDSMAN AND THEIR SUPERIORS

SUPERVISORY SURVEY FOR SEPARATING GUARDSMAN

1. Did the individual named above separate from the Guard or transfer to a different Guard unit.

☐ separate from the Guard  
☐ transfer to another Guard unit  
☐ unknown

2. Did the individual separate or transfer voluntarily or was he discharged or transferred involuntarily by the unit.

☐ voluntary transfer or discharge  
☐ involuntary transfer or discharge

3. Was the individual AWOL or unable to effectively perform his MOS at the time of separation

☐ yes  
☐ no

4. Did the individual separate at a normal End of Term of Service(ETS) or did the transfer or separation occur during a term

☐ at ETS  
☐ not at ETS

5. To your knowledge were any of the following factors important in the separation or transfer decision( Mark all that apply)

☐ employer conflicts  
☐ family conflicts  
☐ move out of the area  
☐ retirement  
☐ divorce, child custody or child visitation problems  
☐ injury or health related problems  
☐ lack of Guard promotion opportunity  
☐ lack of interesting training opportunities  
☐ too much time required to fulfill Guard duty  
☐ poor physical condition or overweight  
☐ AWOL or missing drills or annual training  
☐ poor performance in MOS  
☐ lost income or vacation days on civilian job due to Guard service  
☐ threat of loss of civilian job or promotion opportunity due to Guard service  
☐ conflicts with other Guardsman or higher ranking members  
☐ return to school

6. Please mark the appropriate line or provide the appropriate information

☐ male ☐ pay grade ☐ total years of active and reserve  
☐ female ☐ service